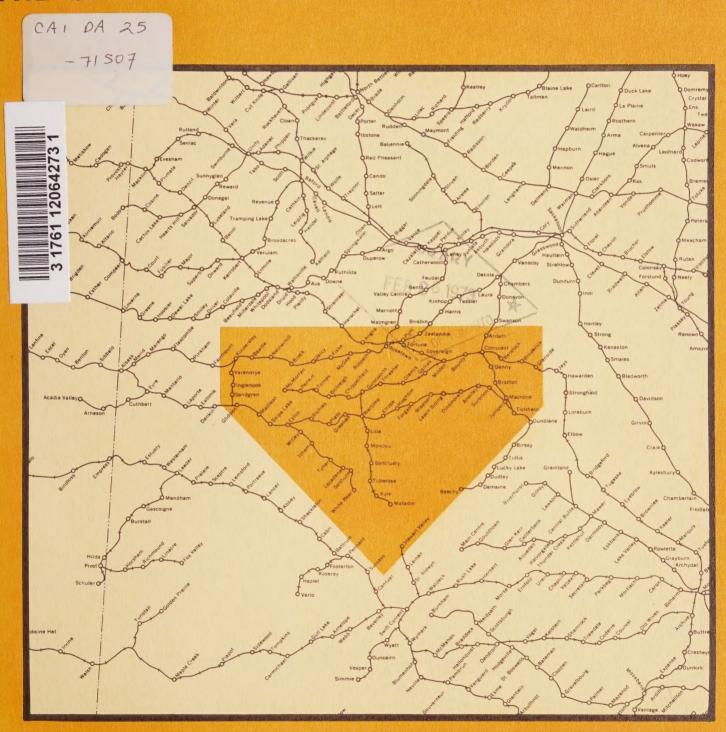
## THE ESTON-ELROSE REGION OF SASKATCHEWAN



Economics Branch, Canada Department of Agriculture J. W. Channon H. R. Fast D. A. Neil





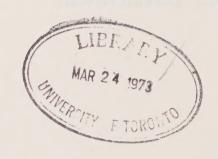
# PRAIRIE REGIONAL STUDIES IN ECONOMIC GEOGRAPHY NO. 7

### THE ESTON-ELROSE REGION OF SASKATCHEWAN

J.W. CHANNON, H. R. FAST, D.A. NEIL ECONOMICS BRANCH CANADA DEPARTMENT OF AGRICULTURE REGINA, SASKATCHEWAN

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- 2. The Boissevain Region of Manitoba by J.W. Channon, D. Zasada and R.T. Miller, Economics Branch, Canada Department of Agriculture.
- 3. The Rockglen Region of Saskatchewan by J.W. Channon, D. Zasada and R.T. Miller, Economics Branch, Canada Department of Agriculture. Pub. No. 69/11, August, 1969.
- 4. The Camrose-Vegreville Region of Alberta by J.W. Channon and D. Zasada, Economics Branch, Canada Department of Agriculture. Pub. No. 69/16, November, 1969.
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- 6. The Killarney Region of Manitoba by J.W. Channon, D. Zasada and K. Morison, Economics Branch, Canada Department of Agriculture. Pub. No. 71/7, May, 1971.
- 7. The Eston-Elrose Region of Saskatchewan by J.W. Channon, H.R. Fast and D.A. Neil, Economics Branch, Canada Department of Agriculture. Pub. No. 71/12, November, 1971.

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To all these people we are indebted. Any errors or omissions, however, remain the responsibility of the authors.

#### **PREFACE**

This report on the Eston-Elrose region of Saskatchewan is the seventh in a series of Prairie Regional Studies in Economic Geography. The geographic area denoted by "Eston-Elrose region" is comprised of the grain-growing areas, or hinterlands, served by 60 delivery points. These are first listed in Table 1 and again in subsequent tables as required.

This collection of detailed tabular material and area maps seeks to describe the socio-economic activity of the region, with emphasis on grain farms and the communities and facilities serving them. From this information it is hoped the reader will gain an appreciation of the relative importance of the communities and their tributary areas.

Against this background of knowledge the impact of proposed programs and contemplated changes in the infrastructure of the region may be assessed. However, the authors have generally refrained from drawing inferences, arriving at conclusions and recommending solutions. Indeed, no attempt has even been made to search for and define a problem. We have been content to provide some of the parameters, bearing in mind the very significant changes in the grain production and marketing system that have been underway in the past several years. The reader will find that simultaneous examination of two or more tables in this report will frequently yield some interesting relationships suggesting new avenues of investigation.

This report is organized into four major parts, the first being a description of the communities themselves. The following community attributes are described: available services, population, school enrolment, postal activity, property tax assessment and transportation services. The second part describes some agricultural characteristics of the region including soils, meteorological data, land values, land use, crop yields, protein content, and farm sizes and tenure. Descriptive material contained in the third part focuses on the grain marketing and handling system as it relates to the delivery points. Among other things, this includes data on the number and capacity of grain elevators, number of permit holders, grain elevator receipts, quota base, grain prices and farm to elevator grain hauling activity. Finally, the last part assumes that certain delivery points are closed and then examines the effect this would have on remaining delivery points in the region. That is, it is first assumed that certain delivery points close. Their hinterlands are diverted and added to neighboring delivery point hinterlands. Finally, estimates are made of acreages, bushels and number of permit holders gained by delivery points remaining open, and of increased hinterland size and hauling distances.

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#### PART I

#### COMMUNITY ATTRIBUTES

#### Classification of Communities

For purposes of this study, the method of community classification is based on a modification of the system devised by the Saskatchewan Royal Commission on Agriculture and Rural Life. The criteria used for classifying and ranking the communities in this study were number of service activities present and population. First, communities were classified by number of services into five categories: namely, "too small to classify", "hamlets", "villages", "towns", and "greater towns". Then, if two or more communities had an equal number of services, they were ranked by population.

This method of ranking is not perfect. For instance, it ignores dollar-volume of retail sales in each community and it does not take into account quality of service activities present. However, it appears to be more meaningful than a simple ranking by population.

Tables 2 and 3 show the number of services present in each community, which served as the basis for the service classification and initial ranking within each class. The 1970 population estimates shown in Table 5 were used in the ranking by population. The results are summarized in Table 1 where communities are listed in ascending order of rank. There were 23 communities too small to classify, 16 hamlets, 14 villages, 4 towns, and 3 greater towns.

The type and number of services shown for each delivery point, other than grain elevators, may not be 100 per cent accurate. This information was gleaned from a visual, field survey and from telephone directories. It is possible that some services were overlooked (e.g. door-to-door salesman; beauty parlour in basement of private home) and sometimes it was difficult to know whether a particular business or meeting hall was in regular use or abandoned.

As a working definition of "service" with respect to grain elevators the following criterion was used. The number of grain elevator companies actively receiving grain from producers, either on a part or full-time basis, during the 1969-70 crop year were counted. This means that the mere presence of a licensed, physical elevator facility was not counted a service if it was used for storage only. Also, if an elevator company had more than one elevator at a particular delivery point it was still only counted as one service.

<sup>&</sup>lt;sup>1</sup>Royal Commission on Agriculture and Rural Life, Regina, Saskatchewan: Queen's Printer, 1957, "Service Centers", Report No. 12.

Of the 23 delivery points too small to classify seven had no services, ll had one service and five had 2 services (Table 2). The only type of service present was the grain elevator. Six delivery points, including Penkill, were being used for storage only by the end of the 1969-70 crop year. In the following crop year, 1970-71, Gaines and Greenan, a hamlet, also converted to storage points. Under a program recently initiated by the Canadian Wheat Board, these elevators are being emptied and disposed of, for instance, Lille closed in June, 1971. Elevators at Glen Payne and Saltburn closed earlier. Glen Payne was located on a C.P.R. track, abandoned in the latter part of 1962, connecting Rosetown and Gunnworth.

Table 3 clearly shows the types and range of services available in the various communities classified as hamlets and larger. The predominant activity in hamlets is the grain elevator and the associated fertilizer dealership, followed by the post office, a meeting hall or church, a small general store and a service station. The latter two are frequently operated by a single proprietor. During the course of conducting the field survey, information was received that the bulk fuel dealer at Bratton was being liquidated.

A similar pattern of services holds true for villages with the addition of a garage, bulk fuel dealer, grocery store, restaurant, hotel and beverage room, a skating or curling rink, fire hall and a small park or fair grounds. Seven villages had a school, five had a bank or credit uion and four had a railway station. Absent are services like a clothing store, pharmacy, lawyer, physician and hospital.

Virtually the whole range of services is displayed in the group of towns and greater towns. Where previously there may only have been one establishment, now there are often two or more establishments of the same type. Some degree of specialization is evident. For instance, to the grocery store a bakery is added and to the hardware store an appliance sales and service store is added. Other specialized services, not itemized in Table 3, were also present. Examples are drive-in eating establishments, dentists, senior citizens home, trailer court and auto-body shop.

TABLE 1. CLASSIFICATION OF COMMUNITIES IN THE STUDY AREA

Too Small to Classify 0-2 Services	Hamlets 3-10 Services	Villages 11-35 Services	Towns 36-74 Services	Greater Towns 75 or More Services
Pym Surbiton Glen Payne Saltburn Lille Chipperfield Verendrye Gaines Mondou Inglenook Penkill Sandgren Witley Fortune Juniper Tichfield Anerley Matador Ridpath Thrasher Gunnworth Totnes Beadle	Leach Siding McMorran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime Forgan D'Arcy	Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Vall Lacadena Sovereign Wiseton Brock	Milden Dinsmore Elrose Kyle	Eston Rosetown Kindersley

TABLE 2. SERVICES PRESENT IN COMMUNITIES TOO SMALL TO CLASSIFY, 1969-70

Services
(No. of Active Grain Elevator Companies)
Nil (Storage only 1962-63 onward) Nil (Storage only 1963-64 onward) Nil (Closed 1963-64) Nil (Closed 1964-65) Nil (Storage only 1964-65 onward) Nil (Storage only 1969-70 onward) Nil (Storage only 1969-70 onward) I I I I I I I I I I I I I I I I I I I
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Source: Canadian Grain Commission, Winnipeg, Manitoba.

<sup>&</sup>lt;sup>a</sup>Closed June 30, 1971. <sup>b</sup>Storage only 1970-71 crop year.

TABLE 3. SERVICES PRESENT IN COMMUNITIES BY RANK, 1971

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COMMUNICATION TRANSPORTATION	Mewspaper																							-		-
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-	Post Office	1	-		-		-	-		-	- -					- -		- -								
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SERVICES	Ag. Rep. Office	+ -				H			+		+		-		H	-	-	-		-	-	+ +			-	
SEF	Parks/Fairgrounds	+						1				-		2	1		-						2 4	- 2		7
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	General/Confectionery Store					-	-							-		-			~ ~	-			2	- 2		100
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<sup>a</sup>Storage only 1970-71 crop year. Source: Field survey and Saskatchewan Telephone Directory.

#### Retail Trade

Only a limited amount of information on retail sales volume in the study area was available and, therefore, could not be used in the ranking process (Table 4). Data was available for incorporated communities for census years 1961 and 1966, and then only if three or more business establishments had reported. (The number of outlets reporting in any one community often does not account for 100 per cent of the retail outlets actually operating in that community.)

In general, retail sales volume increased with the ascending order of community rank; however, it must be remembered that the ranking was established basis 1971 whereas the sales volume data is five and ten years old. Several instances where the retail sales pattern apparently does not correspond to the community ranking can be noted in 1966 for Stewart Valley, Sovereign, Wiseton and Brock. Retail sales of Stewart Valley and Wiseton are much higher than retail sales at Sovereign and Brock. This may mean that Stewart Valley and Wiseton are more important service centers than Sovereign and Brock but other factors like the nature of the particular business establishments reporting and business conditions in that particular year could modify our initial interpretation. A similar observation could be made with respect to Elrose and Kyle.

TABLE 4. RETAIL TRADE OF INCORPORATED COMMUNITIES IN THE STUDY AREA, 1961 AND 1966

	19	961	1966					
Delivery Point	No. of Outlets	Retail Sales	No. of Outlets	Retail Sales				
		-\$000's-		-\$000's-				
Villages				4-				
Bounty Glidden	3 6 2 3 4 4 4 4 6 5	69 126	4 3	67 120				
Netherhill	2	n.a.	7	n.a.				
Madison Macrorie	3 4	86 149	2	n.a. 134				
Plato	4	82	2	n.a.				
Stewart Valley Sovereign	4	80 169	5 3	337 68				
Wiseton	6	273	2 3 2 5 3 3	256				
Brock	5	122	3	88				
Towns	_			005				
Milden Dinsmore	7 11	364 628	6 9	295 761				
Elrose	11	891	9	1,004				
Kyle	13	564	12	935				
Greater Towns	0.7		0.0	0.034				
Eston Rosetown	21 44	2,228 6,004	26 41	3,814 7,545				
Kindersley	42	6,863	49	12,029				

n.a. - Not available.

Source: Census of Canada, Dominion Bureau of Statistics, Ottawa.

#### Population of Communities

Total population of the communities in the study area increased only 5.0 per cent between 1956 and 1970 (Table 5), and this increase is entirely due to increases in the populations of towns and greater towns. As a group the greater towns increased 20.9 per cent and the towns 6.7 per cent. All other classification groups decreased as follows: too small to classify 50.2 per cent, hamlets 31.6 per cent and villages 22.7 per cent. It should also be noted that total population of the towns and greater towns in 1970 accounted for 80.7 per cent of total community population. These trends illustrate the movement of people from small rural centers to larger centers. Total population of Saskatchewan between 1956 and 1970 increased 8.9 per cent.

TABLE 5. POPULATION OF COMMUNITIES IN THE STUDY AREA, CENSUS YEARS 1941 TO 1971 AND 1970  ${\sf ESTIMATES}^a$ 

Delivery Point	1941	1951	1956	1961	1966	1970 Jan. 1 Estimates	1971 June l Preliminary
Too Small to Classify							
Pym			6			2 8	
Surbiton			6			2	
Glen Payne Saltburn						0	
Lille			12	7		0	
Chipperfield		9	13	1		4	
Verendrye						0	
Gaines		5	11	9	1	0	
Mondou Inglenook		14	12 13	19	4	0	
Penkill			13			2	
Sandgren						2 2	
Witley			15			3	
Fortune			13			5	
Juniper			7.0		7.4	7	
Tichfield		31	19	20	14	11	
Anerley		29 13	33 76	30	21 54	11 54	
Matador Ridpath		13	70	2	34	2	
Thrasher		9	8	8		5	
Gunnworth		25	27	16	8	5	
Totnes			24	24	12	7	
Beadle		28	29	37	16	<b>2</b> 8	
Hamlets							
Leach Siding			10			8	
McMorran		21	18	11	0	8	
Bratton		13 27	13	25	9 18	20	
Glamis Tuberose		31	34 36	45	28	29	
Bickleigh		24	19	19	13	15	
Snipe Lake		38	63	29	19	19	
Greenan		6	19	26	25	20	
Isham		38	42	35	31	22	
McGee	82	58	50 <sup>b</sup>	48	40	43	
Sanctuary		64	84	69	46	46	
Tyner	135	53 115	65 120	72 84 <sup>b</sup>	63 82	65 <b>7</b> 9	
Richlea Wartime	133	97	111	96	62	62	
Forgan		81	98	93	66	66	
D'Arcy		50	65	65	68	68	
Villages							
Bounty	104	90	87	87	81	48	49
Hughton	141	87	100	87	85 <sup>C</sup>	72	_
Glidden	92	94	131	145	112	80	70
Netherhill	133	91	111	111	90	70	68 58
Madison Fiske	95	104 84	107 89	101 117	107 120	80 120	58
Macrorie	101	123	152	182	120 194 <sup>d</sup>	141	120
Plato	119	135	185	178	102	64	66
White Bear	,,,,	143	159	139	128	128	
Stewart Valley		130	153	181 <sup>e</sup>	128	138	138
Lacadena		121	164	142	138	138	
Sovereign	127	171	161	125	134	83	91

TABLE 5. POPULATION OF COMMUNITIES IN THE STUDY AREA, CENSUS YEARS 1941 TO 1971 AND 1970 ESTIMATES<sup>a</sup> (concluded)

Delivery Point	1941	1951	1956	1961	1966	1970 Jan. l Estimates	1971 June l Preliminary
Wiseton Brock	163 163	224 191	215 240	246 222	197 223	210 216	181 195*
Towns							
Milden Dinsmore Elrose Kyle	211 215 253 201	314 301 491 337	390 388 538 467	388 433 585 535	288 510 619 518 <sup>f</sup>	270 450 672 510	239* 422 567 507
Greater Towns							
Eston Rosetown Kindersley	726 1,470 990	1,301 1,865 1,755	1,625 2,262 2,572	1,695 2,450 2,990	1,548 2,658 3,534 <sup>g</sup>	1,548 2,658 3,600	1,428
Study Area Total <sup>h</sup>	5,521	9,031	11,460	12,059	12,213	12,033	
Province of Saskatchewan	895,992	831,728	880,665	925,181	955,344	959,000	

<sup>\*</sup> Denotes change in boundaries since 1966.

Source: Census of Canada, Dominion Bureau of Statistics, Ottawa.

Municipal Directory, 1970, Saskatchewan Department of Municipal

Affairs, Regina.

Directory of Hamlets and Settlements, 1969, Saskatchewan Department

of Municipal Affairs, Regina.

<sup>&</sup>lt;sup>a</sup>A blank space means not available.

bDisorganized

CVillage of Hughton disorganized in 1965.

dPart of Fertile Valley R.M. annexed to Macrorie, 1963.

<sup>&</sup>lt;sup>e</sup>Incorporated as a village in 1958.

<sup>&</sup>lt;sup>f</sup>Parts of Lacadena R.M. annexed to Kyle, Aug. 1, 1961 and 1965. Part of Kyle

added to Lacadena, Aug. 1, 1961.

<sup>9</sup>Part of Kindersley R.M. annexed to town of Kindersley in 1965.

<sup>h</sup>Total population of those communities for which data were available.

#### Farm Population

The study area encompasses 13 rural municipalities listed in Table 6. The figures shown are the numbers of people living on census farms.  $^{1}$  In every municipality farm population decreased between 1941 and 1966 as it has for the entire province. For the province it declined 45.4 per cent while farm population in the study area declined 42.9 per cent.

The combined effects of a substantial decline in farm population and an increase in total population resulted in rather sharp declines in the proportion of persons on farms, from a provincial total of 41.1 per cent in 1956 to 29.4 per cent ten years later. The proportion of persons on farms in the study area dropped from about 50.9 per cent to 44.4 per cent during the same time period. These data also illustrate the familiar rural to urban migration trend.

<sup>&</sup>lt;sup>1</sup>For a definition of the term "census farm" the reader is referred to the Agriculture Census of Canada, 1966.

TABLE 6. FARM POPULATION IN THE STUDY AREA BY RURAL MUNICIPALITY, CENSUS YEARS 1941 TO 1966

Rural Municipalities	1941	1951	1956	1961	1966
Census Division #7 226. Victory 255. Coteau 256. King George	1,142 <sup>a</sup> 1,091 875	755 815 576	789 821 613	714 680 398	531 654 492
Census Division #8  167. Saskatchewan Landing  228. Lacadena 257. Monet <sup>b</sup> 259. Snipe Lake <sup>b</sup> 260. Newcombe	1,030 1,831 <sup>a</sup> 1,500 1,847 1,093	718 1,489 1,126 1,159 753	632 1,408 1,193 1,125 787	564 1,332 1,087 1,171 754	547 1,129 855 1,081 785
Census Division #12 285. Fertile Valley 286. Milden 287. St. Andrews 288. Pleasant Valley	1,553 1,073 1,289 1,025	1,058 800 1,050 644	1,014 805 996 624	998 667 851 504	874 592 688 457
Census Division #13 290. Kindersley <sup>C</sup>	2,665	1,823	1,817	1,782	1,595
Study Area Total	18,014	12,766	12,624	11,502	10,280
Farm Population of Saskatchewan	514,677	399,473	362,231	305,740	281,089

<sup>&</sup>lt;sup>a</sup>Adjusted to include farm population of 227. L.I.D. which has since been annexed to 226. Victory and 228. Lacadena. Farm population of 227. L.I.D. was prorated according to proportions of its area annexed to each of 226. Victory and 228. Lacadena; namely, one third and two thirds respectively.

Figures for 1961 and earlier adjusted to include 258. Fairview which was annexed to 257. Monet and 259. Snipe Lake, January 1, 1966. Farm population of 258. Fairview was prorated according to proportions of its area annexed to each of 257. Monet and 259. Snipe Lake; namely, two thirds and one third respectively.

<sup>C</sup>Figures for 1961 and earlier adjusted to include 289. Hillsburgh annexed to 290. Kindersley, January 1, 1966. In addition, the 1941 figure includes farm population of 291. Elma which has since been annexed to 290. Kindersley.

Source: Census of Canada, Dominion Bureau of Statistics, Ottawa.

#### Population by Sex and Age Groups

Tables 7 and 8 contain 1966 Census population data for incorporated communities and rural municipalities making up the study area, as well as provincial totals. Males outnumbered females in the study area, which was also true for the province. In the study area, 51.7 per cent of population were male compared to 51.2 per cent in Saskatchewan.

The age group that most closely represents the effective working population is the 20 to 64 age group. In the province this group comprised 47.9 per cent of the population. The study area closely approximated this at 47.4 per cent. People in the retired age group made up a significantly larger proportion of those living in incorporated communities than on farms and unincorporated communities. There did not appear to be much difference in this respect for the other two age groups.

POPULATION BY SPECIFIED AGE GROUPS AND SEX FOR INCORPORATED COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966 TABLE 7.

Dac 07	over	14	748	722	8 ~ -	10 7 %	V 4 8	14	14 8 6
	69-59	2	112	153	4 2 2	404	134	9 4 2	യ വ യ
	55-64	9 4 2	10 6	2 2 2	2 7 9	748	7 9 1	20	<u>6</u>
	45-54	26 13	13	13 6	∞ O ∞	25 13 12	17 8 9	15	17 5 12
Age	35-44	2 – 3	23	33.1	16	15	13 7 6	8 4 4	N 0 0
Years of	25-34	5 – 3	15 6 9	422	10 2 8	23	<b>0</b> п п	11 9 9	ω m ω
	20-24	-153	0	3 1 4	2	988	mom	9 m m	0 m m
	15-19	722	5-16	4 2 2	5332	22 10 12	10 7 3	15 8 7	11 2
	10-14	844	2 8 2	12 5	11 6	25 15 10	12 7 5	12 7 2 5	17 4 4 13
	5-9	532	12 4 8	12	988	22 12 10	12 6	L / 4	0 0
	0-4	422	10	5 8 5	18	25 13 12	11 9	10	0 − ∞
	Total	81 45 36	112 48 64	90 45 45	107 55 52	194 104 90	102 60 42	128 64 64	134 63 71
		nunities T. M.	ĻΣĿ	ĻΣĽ	ĿΣĽ	ĿΣĿ	ĿΣĿ	-ΣH.	- Σ μ
		Incorporated Communities Bounty M.	G1idden	Netherhill	Madison	Macrorie	Plato	Stewart Valley	Sovereign

See footnotes at end of table

(continued)

POPULATION BY SPECIFIED AGE GROUPS AND SEX FOR INCORPORATED COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966 (continued) TABLE 7.

							Years	s of Age					Dac 07
		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	69-59	over
Wiseton	⊢ΣĿ	197 92 105	13	24 9 15	600	17	₩ W	20 10	26 13 13	18	15	12 5	28
Brock	⊢ΣΉ	223 106 117	23	21	14	138	12 6 6	118	14 6 8	33	26	11 5	33 20 13
Milden	ĿΣĿ	288 141 147	16	20 5 15	42 17 25	28 20 8	20 10 10	15 8 7	36 16 20	39	29	624	34 21 13
Dinsmore	ĿΣĽ	510 281 229	48 31 17	54 33 21	45 22 23	47 29 18	33 20 13	45 22 23	52 26 26	53 27 26	59 25 34	21	34
Elrose	⊢ΣĿ	619 307 312	52 30 22	52 27 25	65 34 31	64 28 36	42 20 22	53 27 26	60 31 29	33 38	60 27 33	15	85 46 39
Ky1e	⊢Σ'n	518 277 241	45 23 22	56 38 18	55 34 21	45 24 21	27 16 11	55 27 28	53 24 29	65 33 32	45 21 24	23	49 24 25
Eston	⊢ΣĽ	1,548 756 792	134 65 69	154 78 76	161 87 74	135 70 65	91 48 43	149 72 77	179 87 92	164 74 90	137 65 72	49 20 29	195
Rosetown	ĿΣï	2,658	281 136 145	265 136 129	256 117 139	285 150 135	216 103 113	258 136 122	310 156 154	301 140 161	198 103 95	73 30 43	215 98 117
Kindersley	ĻΣĽ,	3,534	403 202 201	405 202 203	334 175 159	332 156 176	299 170 129	435 227 208	361 180 181	327 155 172	236 112 124	90 41 49	312 153 159
footnotes at	end of	table										(cor	(continued)

POPULATION BY SPECIFIED AGE GROUPS AND SEX FOR INCORPORATED COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966 (continued) TABLE 7.

POPULATION BY SPECIFIED AGE GROUPS AND SEX FOR INCORPORATED COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966 (concluded) TABLE 7.

							Yea	ears of Age	a				70 and
		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	69-59	over
285. Fertile Valley	÷ ž μ˙	921 494 427	67 33 34	109 57 52	135 61 74	82 46 36	36 24 12	68 37 31	120 63 57	154 84 70	77 49 28	21	52 31 21
286. Milden	ب چ ب	634 333 301	52 27 25	71 31 40	90 44 46	63 36 27	33 20 13	53 29 24	94 43 51	84 49 35	51 27 24	26 18 8	17
287. St. Andrews	ŀΣu	725 398 327	58 33 25	79 36 43	96 51 45	74 47 27	27 15 12	68 37 31	82 35 47	132 74 58	54 36 18	16	30 12
288. Pleasant Valley	ĿΣĿ	665 355 310	54 24 30	78 41 37	81 42 39	59 34 25	30 23	70 36 34	64 31 33	82 43 39	72 39 33	26 17 9	49 25 24
290. Kindersley		1,815 950 865	184 87 97	233 127 106	285 148 137	186 84 102	82 42 40	144 82 62	243 123 120	228 119 109	121 72 49	34 21 13	75 45 30
Study Area Total	ĿĔĿ	23,167 11,988 11,179	2,297 1,141 1,156	2,636	2,749 1,404 1,345	2,245 1,189 1,056	1,356 756 600	2,238 1,150 1,088	2,773	2,844 1,453 1,391	1,770 943 827	619 324 295	1,640 884 756
Provincial Total	ĿΣ'n	955,344 489,040 466,304	107,515 54,979 52,536	110,130 56,128 54,002	103,304 53,042 50,262	88,412 44,786 43,626	62,150 31,551 30,599	104,651 53,255 51,396	110,413 56,052 54,361	103,270 52,290 50,980	76,617 40,352 36,265	27,264 14,057 13,207	61,618 32,548 29,070
T Total	Σ.	Male	l L	Female									

<sup>a</sup>Rural municipality data include farm and unincorporated community population but exclude populations of incorporated communities.

Source: Census of Canada, 1966, Dominion Bureau of Statistics, Ottawa.

TABLE 8. PROPORTION OF POPULATION FALLING WITHIN THREE SPECIFIED AGE GROUPS, 1966

	Pre-School and School Age Groups	Working Age Group	Retired Age Group
	(0 to 19 years)	(20 to 64)	(65. and Over)
		- per cent -	
Incorporated Communiti			
Bounty	29.6	50.6	19.8
Glidden	34.8	55.4	9.8
Netherhill	45.6	43.3	11.1
Madison	46.7	42.1	11.2
Macrorie	48.5	44.3	7.2
Plato	44.1	45.1	10.8 15.6
Stewart Valley	37.5 40.3	46.9 43.3	16.4
Sovereign Wiseton	37.1	42.6	20.3
Brock	34.1	46.2	19.7
Milden	36.8	48.3	14.9
Dinsmore	38.0	47.5	14.5
Elrose	37.6	46.2	16.2
Kyle	38.8	47.3	13.9
Eston	37.7	46.5	15.8
Rosetown	40.9	48.3	10.8
Kindersley	41.7	46.9	11.4
Rural Municipalities <sup>a</sup>			
Victory	44.6	50.0	5.4
Coteau	43.8	48.3	7.9
King George	47.2	47.6	5.2
Saskatchewan Landir		46.9	5.5
Lacadena	45.3	46.6	8.1
Monet	46.4	47.3	6.3
Snipe Lake	43.4	49.4	7.2
Newcombe	50.3	45.8	3.9
Fertile Valley	42.7	49.4	7.9
Milden	43.5	49.7	6.8
St. Andrews	32.8	59.6	7.6
Pleasant Valley	40.9	47.8	11.3
Kindersley	48.9	45.1	6.0
Study Area Total	42.8	47.4	9.8
Provincial Total	42.8	47.9	9.3

<sup>&</sup>lt;sup>a</sup>Rural municipality data include farm and unincorporated community population but exclude populations of incorporated communities.

Source: Calculated from Table 7.

#### School Enrolment

It is evident from school enrolment figures (Table 9) that the trend in Western Canada towards school consolidation has affected the Eston-Elrose study area as well. None of the communities too small to classify had a school in 1970-71 and only D'Arcy, the largest of the hamlets, had one school for grades 1-8. Six of the 14 villages had schools with the highest grade offered being Grade 9 at Glidden. All of the towns and greater towns had both elementary and high schools.

12-02
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9
YEAR
SCHOOL Y
GRADES,
ВХ
AREA
STUDY
뫈
IN
ENROLMENT
SCHOOL
TABLE 9.

Rosetown Dissonce Rosetown Wyle Elrose Elrose Rindersley Rindersle	2 3 4 5 6 / 8 9 10 11 12 Aux lotal -
Dinsmore Eston Conquest & Rosetown Kyle Eston & Elro Eston	
	10 7 * * *

See footnotes at end of table

SCHOOL ENROLMENT IN THE STUDY AREA BY GRADES, SCHOOL YEAR 1970-71 (concluded) TABLE 9.

Pupils Conveyed to	Conquest & Outlook Elrose Kindersley (10-12) Kindersley Eston D'Arcy (1-8),	Rosetown (9-12) Outlook (9-12) Eston	Kyle (6-12) Swift Current (9-12) Elrose (5-12)	Dinsmore (8-12) Rosetown (7-12)		
-			E 10.01		0.10 ~ 6	m 21.0
Total	38	89	57 106 12	22	210 276 487 379	798
Aux					7	16
12					20 29 39	131
=					19 25 47 34	77 126 125
10					32 46 42	135
6	ment -				29 40 54 50	. 82 144 143
∞	enrolment	22			24 34 41 36	69 127 155
7	1 *	9		10	15 20 53 30	65 124 152
9	m	14	13	7 7	11 24 47 28	67 82 109
2	-	12	9 (1-8)	m ∞	26 14 32 21	70 93 107
4	*	6	8 : Grades	7	10 33 33	59 79 129
c	10	9	9 7 11 Total Enrolment 3 3 6	10	13 25 29	53 73 107
2	Ξ	Ε	7 al Enr	0,00	17 12 32 20	64 76 130
-	6	6	9 Tot	o o	8 32 17	58 76 93
Grades:						
Delivery Point	Villages Bounty Hughton Glidden Netherhill Madison Fiske	Macrorie	White Bear Stewart Valley Lacadena	Sovereign Wiseton Brock	Towns Milden Dinsmore Elrose Kyle	Greater Towns Eston Rosetown Kindersley

Aux - Auxiliary classes \* Asterisk indicates that the grades in question were available but no students were enroled during 1970-71 school year.

Source: Saskatchewan Department of Education, Regina.

#### Post Office Revenue

Post office revenues serve as a crude indicator of socio-economic activity in a community and its environs (Table 10). The last post office in communities too small to classify was closed in 1968 at Surbiton. All but three of the hamlets had post offices until 1970. In addition, the Glamis post office has closed since then. All hamlet post office revenues in recent years, except Richlea, have been less than \$1,000 and most have experienced downward trends. In 1970 village post office revenues, for the most part, ranged from about \$1,000 to \$3,000. Bounty had postal revenues of only \$360. At present, mail going to Bounty is dispatched from Conquest and placed in community mailboxes located in Bounty. Revenues of towns are in the \$4,000 to \$11,000 brackets and all experiencing upward trends. Substantial revenue increases have also occurred in Eston, Rosetown and Kindersley, whose postal revenues are in excess of \$20,000 to \$50,000.

TABLE 10. POST OFFICE REVENUE IN THE STUDY AREA, FISCAL YEARS 1957-58 TO 1969-70

1970	1968			54 233 332 332 467 655 1,052 935 914
1969	Closed 1968			257 238 322 416 532 530 431 614 1,040 818 818
1968	243	1966		354 278 301 439 463 607 445 636 1,179 888 869 915
1967	263	Closed 1965 86 Closed	1965 1963	377 260 334 475 455 601 436 624 1,132 837 955
1966	246	C10sed 86	124 Closed 1965 Closed October, 1963	329 276 341 532 451 675 1,179 1,000
1965	206	173	124 Closed	367 294 358 358 507 622 467 615 1,151 892 1,068
1964	1 78	1963 203 196	196	378 291 326 1961 516 474 616 616 637 1,067 1,037
1963	- dollar	Closed 202 202	Closed 388 418	320 328 328 341 Closed 529 643 473 1,029 888 878 893
1962	179	37 148 195	84 412 425	3393 358 354 460 630 630 647 7413 6857
1961	181	1960 41 253 204	64 361 429	1959 333 376 344 331 567 466 544 490 1,061 9891 884
1960	176	Closed 1960 62 4 959 212 25	64 384 427	Closed 319 415 297 357 357 532 600 480 1,104 1,000 1,000
1959	0ffice 186 916	924 0ffice 0ffice 010sed 1 926 947 0ffice 0ffice 0ffice	949 949 Office 51 422 466	Office 952 298 354 473 322 402 513 493 472 1,152 1,021
1958	No Post Office 221 186 Closed 1916	n.a. n.a. n.a. n.a. 13. No Post Office No Post Office 114 Closed 126 Closed 1926 Closed 1947 No Post Office Closed 1921 No Post Office No Post Office 366 296	Closed 1949 Closed 1949 No Post Office 47 451 422 531 466	No Post Office Closed 1952 294 354 364 433 443 473 335 402 520 513 520 513 544 472 726 589 443 472 1,247 1,152 1,011 1,021
Year Ending March 31				
Delivery Point	Too Small to Classify Pym Surbiton Glen Payne	Saitourn Lille Chipperfield Verendrye Gaines Gaines Mondou Inglenook Penkill Sandgren Witley Fortune Juniper Tichfield	Matador Ridpath Thrasher Gunnworth Totnes Beadle	Hamlets Leach Siding McMoran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime Forgan

TABLE 10. POST OFFICE REVENUE IN THE STUDY AREA, FISCAL YEARS 1957-58 TO 1969-70 (concluded)

1967 1968 1969 1970		627 518 483 360 1,676 1,408 1,511 1,527 1,272 1,383 1,293 1,778 1,059 999 988 1,088 1,249 1,261 1,237 1,705 1,411 1,328 1,232 1,456 2,320 2,477 2,478 2,484 1,115 973 1,078 1,215 1,724 1,748 1,430 1,495 1,446 1,487 1,505 1,511 2,179 2,201 2,220 2,431 1,468 1,509 1,562 1,584 2,572 2,614 2,728 3,097 2,571 2,551 2,422 2,652	4,258 4,373 4,378 4,792 7,384 7,462 7,999 8,521 8,558 9,310 10,001 11,704 7,638 7,730 8,397 9,153	19,693 20,658 20,995 23,826 37,793 40,079 42,851 48,971 42,495 44,836 47,044 52,668
1966 1		683 1,487 1,1402 1,402 1,264 1,390 1,142 1,695 1,142 1,695 1,142 1,695 1,142 1,695 1,288 2,588 2,588 2,638 2,638	4,208 4, 6,944 7, 8,474 8, 7,115 7,	20,215 19, 37,083 37, 40,596 42,
1965		740 1,563 1,492 1,303 1,530 2,245 1,089 1,657 1,484 2,319 2,624 2,623	4,153 6,799 8,384 7,170	19,868 35,823 42,523
1964	ars =	722 1,319 1,160 1,319 1,431 1,928 1,473 1,387 2,022 1,550 2,505	3,924 6,322 7,622 6,318	18,403 32,110 38,361
1963	- dolla	714 1,172 1,172 1,172 1,188 1,332 1,462 1,467 1,467 2,675 2,648	3,920 6,104 7,018 6,480	17,270 32,897 36,879
1962		734 1,121 1,449 1,056 1,238 1,238 1,967 1,394 2,055 1,537 1,591 2,558	4,018 6,049 6,943 6,190	16,923 31,086 33,554
1961		758 1,442 1,442 1,023 1,530 1,629 1,387 1,442 2,115 2,115 2,206	4,401 5,569 7,110 5,657	16,221 30,763
1960		712 1,085 1,483 1,246 1,246 1,649 1,1643 1,361 1,361 1,599 2,701 2,701	4,205 5,597 6,720 5,279	16,327
1959		802 1,185 1,510 1,083 1,127 1,1708 1,554 1,554 1,560 2,006 2,892 2,329	4,194 5,314 6,328 4,888	15,078 29,852
1958		850 1,065 1,065 1,1320 1,148 1,629 1,629 1,432 2,706 2,706	4,177 5,304 6,326 4,625	14,673 29,038
Year Ending March 31				
Delivery Point		Villages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiseton Brock	<i>Towns</i> Milden Dinsmore Elrose Kyle	Greater Towns Eston Rosetown

n.a. - Not available.

Source: Canada Post Office Department, Ottawa.

# Property Tax Assessment

The property tax assessment figures in Table 11 show the relative importance of railway property and other right-of-way occupancies to the total assessment of each community in the area. Generally speaking, the larger the community with respect to number of service activities, the lower is the proportion of tax assessment related to railway associated property. This is dramatically portrayed by comparing the proportions in communities too small to classify with those in towns and greater towns. In many small centers railway associated assessment made up 100 per cent of the total while in Kindersley it accounted for only 8.0 per cent.

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971

				Too Small to Classify	Jassify		
	Pym	Surbiton	Glen Payne	Saltburn	Lille	Chipperfield	Verendrye
				- dollars	1		
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	270	420	1 1 1 1	1 1 1 1	680 290 100	1,120	260
Other Property Taxable Land Taxable Buildings Taxable Business	40 1,600 7,560	30 9,260 1,940	j j j	1 1 1	90 7,480 1,570	80 9,740 1,460	8,570 1,560
Total Assessment of R.O.W. Properties	092,6	11,650	â	1	10,210	13,050	10,450
Non-Right-of-Way Properties							
Taxable Land Taxable Buildings Taxable Business	1 1 1	60 1,920 510	1 1 1	1 1 1	1 1 1	1 1 1	1,220
Total Assessment of Non-Right-of-Way Properties	ı	2,490	,	t	ı	ı	1,270
Total Tax Assessment	9,560	14,140	ŧ	1	10,210	13,050	11,720
Per Cent of Tax Assessment derived from R.O.W.	100.0	82.4	i	i	100.0	100.0	89.5
See footnotes at end of table							(continued)

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

			To	Too Small to Clas	Classify		
	Gaines	Mondou	Inglenook	Penkill	Sandgren	Witley	Fortune
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	640 900 100	560 130 100	480	- 400 80 100	340	420 330	640 1,660 100
Other Property Taxable Land Taxable Buildings Taxable Business	17,170 17,040 3,200	160 20,870 3,360	50 8,710 1,600	170 9,520 1,660	60 8,810 1,580	90 19,100 3,400	25,020 4,240
Total Assessment of R.O.W. Properties	22,050	25,180	10,840	11,930	10,790	23,340	31,870
Non-Right-of-Way Properties Taxable Land	1 1	350	1 1	40	150	40	100
Taxable Business Total Assessment of Non-Right-of-Way Properties	1 1	2,120	1 1	1,070	1,670	1,840	2,780
Total Tax Assessment	22,050	27,300	10,840	13,000	12,460	25,180	34,650
Per Cent of Tax Assessment derived from R.O.W.	100.0	92.2	100.0	91.8	9.98	92.7	92.0

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

			T00	Too Small to Classify	ssify		
	Juniper	Tichfield	Anerley	Matador	Ridpath	Thrasher	Gunnworth
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	350	- 460 290 100	440 1,740 100	620	1 88 1 1	800 09 100	730
Other Property Taxable Land Taxable Buildings Taxable Buildings	70 13,970 3,240	130 20,710 4,420	90 20,940 4,780	150 20,610 3,800	80 15,930 1,480	240 22,740 3,040	21,170 3,480
Total Assessment of R.O.W. Properties	17,630	26,110	28,090	25,180	17,870	26,980	26,180
Non-Right-of-Way Properties  Taxable Land	200	260	480	70	410	120	520
Taxable Business Total Assessment of	702,1	0.000	000,0	0,000	- 014	0 0 00 00 00 00 00 00 00 00 00 00 00 00	- 77.0
Non-Right-ot-Way Properties Total Tax Assessment	18,940	30,760	35,250	26,890	18,280	30,600	30,450
Per Cent of Tax Assessment derived from R.O.W.	93.1	84.9	79.7	93.6	97.8	88.2	86.0

See footnotes at end of table

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

	Too Small	Too Small to Classify			Hamlets		
	Totnes	Beadle	Leach Siding	McMorran	Bratton	Glamis	Tuberose
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	540 570 100	430	1 1 1 1	850	380 1 1	1,090 160 100	660 290 100
Other Property Taxable Land Taxable Buildings Taxable Business	23,110 3,460	200 35,500 6,270	120 17,510 3,880	22,690 3,930	40 11,290 2,000	38,520 5,790	320 31,560 5,730
Total Assessment of R.O.W. Properties	27,980	42,400	21,510	27,680	13,710	46,260	38,660
Non-Right-of-Way Properties Taxable Land Taxable Buildings Taxable Business	170	740	2,330	80 2,840	130 4,690 1,440	570 12,470	1,340
Total Assessment of Non-Right-of-Way Properties Total Tax Assessment	5,790	7,860	2,430	2,920	6,260	13,040	16,340
Per Cent of Tax Assessment derived from R.O.W. Properties	82.9	84.4	8.68	90°5	68.7	78.0	70.3

See footnotes at end of table

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

	Bickleigh	Snipe Lake	Greenan	Isham	McGee	Sanctuary	Tyner
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	690 270 100	260	. 88 . 80	460 270 100	490	1,140 290 100	700 290 100
Other Property Taxable Land Taxable Buildings Taxable Business	17,470 3,340	280 55,350 9,470	40 7,420 1,760	190 38,000 5,960	140 15,750 3,020	730 36,750 5,790	430 36,000 5,560
Total Assessment of R.O.W. Properties	22,040	65,720	009,6	44,980	19,400	44,800	43,080
Non-Right-of-Way Properties							
Taxable Land Taxable Buildings Taxable Business	710 13,870 3,490	750 12,540	1,930 15,550 2,180	1,110 21,320 1,870	2,150 14,680 1,450	5,020 27,970 3,260	3,530
Total Assessment of Non-Right-of-Way Properties	18,070	13,290	19,660	24,300	18,280	36,250	35,820
Total Tax Assessment	40,110	79,010	29,260	69,280	37,680	81,050	78,900
Per Cent of Tax Assessment derived from R.O.W.	55.0	83.2	32.8	64.9	51.5	55.3	54.6

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

		Hamlets	ets			Villages	
	Richlea	Wartime	Forgan	D'Arcy	Bounty	Hughton	Glidden
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	710 1,940 100	1,030	880 2,210	460	3,160 840 200 100	1,170	1,470 670 3,390
Other Property Taxable Land Taxable Buildings Taxable Business	490 77,740 12,090	520 36,930 5,760	620 71,180 10,870	240 27,190 3,360	530 32,440 5,950	900 74,900 11,920	510 60,210 9,440
Total Assessment of R.O.W. Properties	93,070	46,640	85,860	31,250	43,220	068,06	75,790
Non-Right-of-Way Properties							
Taxable Land Taxable Buildings Taxable Business	3,920	4,430 39,450 2,520	2,970 31,960 2,590	2,690 34,580 970	8,900 46,240 4,660	9,330 52,810 5,190	5,970 57,680 1,380
Total Assessment of Non-Right-of-Way Properties	70,850	46,400	37,520	38,240	59,800	67,330	65,030
Total Tax Assessment	163,920	93,040	123,380	69,490	103,020	158,220	140,820
Per Cent of Tax Assessment derived from R.O.W.	56.8	50.1	9*69	45.0	42.0	57.4	51 3.8

TABLE 11. PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued)

				Villages			
	Netherhill	Madison	Fiske	Macrorie	Plato	White	Valley
				- dollars	1		
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	680 2,310 100	1,740 1,180 2,260 100	2,660	1,650 900 3,920 620	1,500 730 2,000 350	1,270	2,430 1,600 100
Other Property Taxable Land Taxable Buildings Taxable Business	390 45,000 8,240	940 77,300 11,800	410 39,730 8,910	470 20,930 6,480	480 40,510 7,350	1,000 58,650 12,350	1,130 46,880 10,660
Total Assessment of R.O.W. Properties	56,720	95,320	53,370	34,970	52,920	75,740	62,900
Non-Right-of-Way Properties							
Taxable Land Taxable Buildings Taxable Business	8,520 49,710 5,420	6,920 66,240 10,590	9,560 68,450 9,200	17,720 88,710 10,910	15,150 62,740 3,200	17,210 83,100 12,490	25,720 114,220 11,870
Total Assessment of Non-Right-of-Way Properties	63,650	83,750	87,210	117,340	81,090	112,800	151,810
Total Tax Assessment	120,370	179,070	140,580	152,310	134,010	188,540	214,710
Per Cent of Tax Assessment derived from R.O.W.	47.1	53.2	38.0	23.0	39.5	40.2	29.3
Coe footnotes at end of table							(continued)

See footnotes at end of table

PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (continued) TABLE 11.

		Villages	es			Towns	
	Lacadena	Sovereign	Wiseton	Brock	Milden	Dinsmore	Elrose
				- dollars -			
Right-of-Way Properties							
Railway Property Roadway Other Land Buildings Business	1,210 2,380 100	3,310 1,620 240 100	1,530 1,840 2,140 720	780 1,000 3,950 960	2,000 4,130 3,040 1,450	3,180 2,930 3,580 790	5,300 4,690 5,010 840
Other Property Taxable Land Taxable Buildings Taxable Business	940 50,330 12,560	1,340 66,130 10,050	1,780 71,350 12,620	910 34,960 11,510	3,780 78,860 16,030	3,270 123,870 19,780	4,570 78,630 21,910
Total Assessment of R.O.W. Properties	67,520	82,790	91,980	54,070	109,290	157,400	120,950
Non-Right-of-Way Properties Taxable Land Taxable Buildings Taxable Business	12,560 68,830 14,390	13,090 79,690 9,520	22,690 173,390 26,740	35,000 220,920 26,460	56,530 248,360 48,490	85,010 443,385 79,470	134,530 606,840 95,800
Total Assessment of Non-Right-of-Way Properties	95,780	102,300	222,820	282,380	353,380	607,865	837,170
Total Tax Assessment	163,300	185,090	314,800	336,450	462,670	765,265	958,120
Per Cent of Tax Assessment derived from R.O.W.	41.3	44.7	29.5	16.1	23.6	20.6	12.6

PROPERTY TAX ASSESSMENT FOR COMMUNITIES IN THE STUDY AREA, 1971 (concluded) TABLE 11.

	CIMIN			
	Ky1e	Eston	Rosetown	Kindersley
		i	dollars -	
Right-of-Way Properties				
	3,160 4,510 3,290	7,450 16,210 6,040 2,050	23,780 44,450 13,180 8,720	11,000 40,210 39,910 8,720
er Property Taxable Land Taxable Buildings Taxable Business	5,630 62,500 17,490	16,880 150,870 50,830	60,360 316,830 85,010	48,760 246,950 161,780
Total Assessment of R.O.W. Properties	96,630	250,330	552,330	557,330
Non-Right-of-Way Properties				
Taxable Land Taxable Buildings Taxable Business	147,850 628,430 109,960	412,460 1,523,590 253,950	1,020,370 2,817,390 690,450	1,631,280 3,987,500 807,560
Total Assessment of Non-Right-of-Way Properties	886,240	2,190,000	4,528,210	6,426,340
Total Tax Assessment	982,920	2,440,330	5,080,540	6,983,670
Per Cent of Tax Assessment derived from R.O.W. Properties	6.0	10.3	10.9	8.0

R.O.W. - Right-of-Way

Source: Saskatchewan Department of Municipal Affairs, Regina.

## Carload Rail Traffic

The volume of rail traffic to and from a community is another indicator of economic activity, although truck traffic should also be considered to obtain a more complete picture. Generally speaking, the more people and service activities there are in a community the more freight traffic is generated. Grain shipments at a particular delivery point depend on such inter-related factors as: size of hinterland, number of permit holders, crop yield and grain marketings in general (exports) and grain marketings from that delivery point in particular.

Table 12 shows the number of carloads shipped in and out of each delivery point in the study area for the years 1960 to 1970. The type of traffic is broken down into five broad categories and again communities are listed in the order of rank first established in Table 1.

Delivery points too small to classify had very little traffic. What traffic there was generally declined over time and was virtually all accounted for by outbound grain traffic. In 1970 Beadle had by far the most number of cars; namely, 302 cars outbound. The next highest number was 173 cars at Anerley. At those delivery points where the grain elevator has closed rail traffic has ceased altogether.

Outbound shipments of grain also predominated rail traffic of hamlets with only a sprinkling of cars (largely inbound) carrying products of mines, forests and manufactures. Of times outbound manufacturers and miscellaneous traffic is made up simply of scrap iron. Total carload movements at hamlets in 1970 ranged from 41 at Greenan to 449 at Richlea. All but five hamlets had movements in excess of 100 cars.

Total carload movements in and out of villages in 1970 ranged from 125 at Macrorie to 423 at Brock. Again, outbound grain shipments predominated; however, there were also more shipments in the other four commodity groups than observed at smaller centers. The general trend appears to be slightly upward.

The traffic pattern for towns and greater towns remains essentially the same as for hamlets and villages; namely, that outbound grain is the most important, that traffic out greatly exceeds traffic in, and that inbound traffic is made up of a variety of products like coal, lumber and building supplies, fertilizer, fuel oil, agricultural supplies and machinery. Livestock loading facilities were observed at Milden and Dinsmore (Table 3), however, a volume of animals and products traffic in the last ten years, at all points in the study area, has been very low or nil. Of course, traffic volume is higher in towns and greater towns than in smaller centers. In 1970 total movements ranged from 307 cars at Kyle to 1,120 cars at Rosetown.

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 TABLE 12.

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	남	1967 In Out		1968 In Out		1969 In Out		1970 In Out
Too Small to Classify  Pym Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	۳. ت ن	ъ. П	٠ ت ح	n.a.	n.a.	- carloads -			111111	0   1   0		1 1 1 1 1	1 1 1 1 1	1111	1 1 1 1 1
Surbiton Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	32 33 33 33 33 33 33 33 33 33 33 33 33 3	3 - 1 - 1 - 5 - 5 - 1 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2	36	24	د د	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1	1 1 1 1 1 1	811118			1 1 1 1 1 1	1 1 1 1 1	1 1 1 1 1 1
Glen Payne <sup>a</sup> Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	ت ت	n.a.	35 1 1 1 1 1 35												
Saltburn Products of Agriculture Animals and Products Products of Mines Products of Forests Manufacturers and Misc.	49	44	ت ب	3	a,	1 1 1 1 1 1	911119	1 1 1 1 1 1	1 1 1 1	11111	1 1 1 1 1 1			1 1 1 1 1	1 1 1 1 1 1
Lille Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	م ب	د د	25	n.a.	25 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1		3 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	-1111-
See footnotes at end of table														(continued)	(pant

TABLE 12. REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued)

+ a i to O V V V V I L C C	1960	1961 In Out	1962 In Out		1963 In Out	1964 In Out		1965 In Out		1966 In Out	1967 In Out	Jut	1968 In Out	nt	1969 In Out	141	1970 In Out	47
						1	carloads	- sp										
Chipperfield Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	م. ۲	n.a.	1111	42 - 1 - 24	n.a.	09	111111	25	1 1 1 1 1 1	37	1 1 1 1 1 1	811118	1 1 1 1 1 1	21 - 1 - 21	1 1 1 1 1 1	5 1 1 1 5	1 1 1 1 1	11111
Verendrye Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	20 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	111111	1 1 1 1 1	56	111111	• ⊄ ⊑	, , , , , , ,	20 1 1 1 1 00	1 1 1 1 1 1	99	1 1 1 1 1	22 1 1 22	1 1 1 1 1 1	22 22 - 22	1 1 1 1 1 1	4 4	1 1 1 1 1	mııım
Gaines Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n, a	n. N	11111	70	ب ع .			31 1 1	111-1-	102	1 1 1 1 1 1	19 11 19	1111	44	1 1 1 1 1 1	42 43		35 1 1 35
Mondou Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	م. ۱	1 1 1 1 1 1	42 - 42	r	0 0		27		74 - 74	1111	43	1 1 1 1	43 1 1 1 8	1 1 1 1 1 1	27	1 1 1 1 1	67
Inglenook Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	8	1 1 1 1 1 1 1	1 1 1 1 1 1	911119	77	n.a.		76	1 1 1 1 1 1	75	1 1 1 1 1	49	11111	42	1 1 1 1 1 1	44	11111	55 55
See footnotes at end of table																(00)	(continued)	(pa

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

Forests  Agriculture  Agricultu	Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 t In Out	Out
tusing products  cts of Agriculture  cts of Ag						- Ca							
sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Representation sand Misc. sand Products sand Products sand Misc. sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Misc. sand Products sand Products sand Misc. sand Products sand Sand Misc. sand Sand Sand Misc. sand Sand Sand Misc. sand Sand Sand Sand Sand Sand Sand Sand S	cts of Agriculture 1s and Products cts of Mines cts of Forests actures and Misc. Total	n.a.	د د								m m		millim
Lots of Agriculture	Sandgren Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.		64			n.a.							64
ts of Agriculture Is and Products  n.a.	Witley Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total		8 1 1 1 1 8	, , a		n.a.	74	103					45 1 1 46
ts of Agriculture	Fortune Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	°e. ⊏	م. ۱		n. n			1 1 1 1 1 1	100		1 1 1 1 1		76
	Juniper Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.					م.		[ ] [ ] [ ] [		1 1 1 1 1 1	1 1 1 1 1 1		65

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

Delivery Point	In Out	1961 In Out	1962 In Out	In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
Tichfield Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	ت. ش	ت ت	n.a.	n. n.	n. a.	carloads - n.a.	د د	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	56 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11111	48 41 1 1 1 1 1 2 2
Anerley Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	121	6 132	2 119	154	م.	180	172	172	141	122	171
Matador Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n. a.	Б.	130	. a.	158	114	150	146	78   1   1   1   8	77	111111
Ridpath Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	م	G	G	د د	د د	ت	1111111 8 8 411114	1 1 1 1 1 1 1 4	17	24 1 1 1 1 1 4 2 4 1 1 1 1 1 1 1 1 1 1 1
Thrasher Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	С	د د	103	С	189	98	179 2 - 2 2 - 3 2 182	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	79	3 3 7 1	1 122

TABLE 12. REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued)

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out	ont
Gunnworth Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	1	92	n.a.	- 76	carloads - 51	109	1	09   1   1   1   1   1   1   1   1   1			8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Totnes Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.		0 1 1 1 1 0	م	133 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	85 85	158	0 0	87	1 1 1 1 1 1 1 8	1 1 1 1 1 1	105
Beadle Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	n.a.	ت ت	a	n.a.	n.a.	G	252 - 252 - 252 2 252	164	231	1 1 1 1 1 1	302
Hamlets  Leach Siding Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	0 1 1 1 1 1 0	114	1 1 1 1 1 1 8	122	n.a.	150	134	165	0 0	111111	1 1 1 1 1 1	158
McMorran Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	° c .	n.a.	129	n. B	241	164	268	- 155 	135	200	1 1 1 1 1 1	141
See footnotes at end of table											(continued)	(pa

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

3 1969 1970 Jut In Out In Out	45 - 71 - 97	87 - 109 - 165 	84 - 91 - 96 	91 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1968 In Out	1 1 1 1 1 1	111111		
1967 In Out	111111	147	127	127
1966 In Out	ت ب	273	197	
1965 In Out	carloads - n.a.	133 1111	0 1 1 1 1 0	
1964 In Out	n.a.	118 2 2 311	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1963 In Out	e	• ° •	η. Α.	n.a.
1962 In Out	n.a.	182	117	
1961 In Out	ů,	n.a.	م	
1960 In Out	, a.	n, a.	n.a.	л. а. п. а.
Delivery Point	Bratton Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	Glamis Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	Tuberose Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	Tuberose Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total Bickleigh Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

44.00	1960	1961	1962	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
		=			1	carloads -					
Greenan Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	1 1 1 8 1 8	4 43 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	37	55 1 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5	n.a.	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	63 - 1 - 1 - 1 - 1 - 1	9911119		20 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Isham Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	240	167	n.a.	174	n.a.	189	259	201	158	191	227
McGee Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	م ب	n.a.	n.a.		٦. م.	n.a.	n.a.	8871118	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	488	53 - 1 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2
Sanctuary Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	• ℃ □	• • •	- 156   - 156	n.a.	251	104	300	279	179	142	255
Tyner Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	169	م ت	156		147	523	290	165	228	233
										,	(100000000)

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
Richlea Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	1 249 2 - 2 1 1 249 4 249	351 1 - 1 - 2 351	345 2 345 2 - 2 4 345	- 282 9 9 13 282	n.a.	carloads - 257 - 57 - 6 257 6 257	. 423 	281	196	278	- 448 1 1 448
Wartime Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	106	93	158	85	33 3	33 161	172 - 172 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	192	121 - 121 - 122 1	151	256
Forgan Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	2 210	215 - 215 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	280	193	n.a.	196	239	264 - 264 4 1 4 1 265	176	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	301
D'Arcy Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.		م.	۳. ت	n. a.	م	ع ب	n, a,	102	123	0 111111	204
Villages Bounty Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	٦. م.	n.a.	1 138	n.a.	196	132	189	127	118	98	159
See footnotes at end of table										၁)	(continued)

TABLE 12. REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued)

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
					- 00	carloads -					
Hughton Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	- 228 - 3 - 10 10 - 4 17 228	166	238	1 158 - 119 1 2 2 - 4 277	n.a.	216 - 70  22 6 22 292	- 221 - 34 18 18 256	- 321 - 50  12 1 12 372	- 172 - 30  17 1 17 203	189	378
Glidden Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	226	1 239 - 4 6 - - 1 7 244	280	250 - 4 - 1 - 1 - 1 - 5 - 5 - 5 - 5 - 5 - 5 - 5	n.a.	- 198 2 - 7 7 - 1 1 - 1	272	243	217	219	301
Netherhill Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	n. a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	269	125	217	270
Madison Products of Agriculture Animals and Products Products of Mines Products of Forests Manufectures and Misc.	- 322 - 2 - 2 - 32 - 34 322	372 1 - 372 30 - 30 - 31	- 393 - 1 26 2 27 395	- 321 1 - 1 26 1 27 322	n.a.	- 340  4 22 - 26 340	- 383 14 14 2 14 385	- 307 4 4 4	248 - 248 	2 2 2 2 2 2 2 3 9	343 1 1 1 1 1 3 3 4 3 3 4 3 4 3 4 3 4 3
Fiske Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	n.a.	n, a	n.a.	n.a.	n.a.	n.a.	- 250   15 - 1 15 251	- 178   20 179	- 200   22 1 22 201	280 - 280 - 7 281

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

Agriculture	Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
ucts of Agriculture       - 200       - 210       - 200       - 172       - 149       - 267       - 245       - 142         ucts of Monests and Misc	Macrorie Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	n.a.	n.a.	د د	ع ب	1	n.a.	n.a.			90 - 90 - 90 - 90 - 90 - 90 - 90 - 90 -	- 108   17 17 108
of Agriculture - 340 - 360 - 293 - 259 - 377 - 492 - 288 - 3nd Misc 1 - n.a 293 - 259 - 377 - 492 - 288 - 201 Misc 1 - n.a	Plato Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc		210			n. a.			245 - 245 7 245		168	264
Agriculture 2 271 - 201 - 224 - 216 - 329 - 257 1 350 1 320 - 227 4	White Bear Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.		m m			n.a.					- 288 	320
ts of Agriculture 2 271 - 201 - 154 - 159 - 293 - 340 - 205 s and Products - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	Stewart Valley Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total		2 2								169	8 8 1 8 1 1 1
sc. 42 - 66 - 53 1 57 - 51 1 36 - 8 1 48 271 71 201 55 155 58 159 52 294 36 340 8 206	Lacadena Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.		201 3 - 2 - 66 - 71 201	n.a.			- 159 1 - 1 57 - 57 - 58 159	293 1 1 5 51 1 5 52 294	- 340  36 340	205	200	227

TABLE 12. REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued)

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out		1969 In Out	1970 In Out	44
					1	carloads -							
Sovereign Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	° ∀ ⊑	n.a.	263 6 - 3 6 - 1 2 1 8 267	n.a.	305 306 3 306	179	297	247	11111	158	- 175   2 176	320	011110
Wiseton Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	- 265 - 9 - 5 - 265	237	- 286 6 - 2 - 10 286	229 - 229 5 - 3 11 232	n.a.	255	297 1 - 3 3 - 3 11 300	330	1 1 1 - 4 5	245 - - 3 248	240 	3 389	V 1 1 1 2 6
Brock Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	n.a.	n.a	n. a.	n. a.	n.a.	ਦ ਦ	290	1 1 1 4 4 4 5 5 5	161	2 209 2 - 2 37 1 39 210	2 - 2 - 44 1 44 1 46 377	711110
Towns Milden Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	л.а.	n.a.	2 323 - 1 8 - 1 2 - 31 43 324		381 5 - 1 37 2 42 384	241 7 - 7 1 - 29 37 241	1 462 - 1 3 - 1 27 - 27 32 463	- 330 - 3 - 1 1 - 45 46 335	32 2 34	278 282 282	- 235 - 1 - 1 - 3 50 3	- 483 - 1 - 1 33 4 34 488	84-1-33
Dinsmore Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	393 11 - 1 16 - 92 - 119 394	5 480 11 - 3 3 - 63 82 483	- 373 - 16 9 - 1 63 - 73 389	- 530 6 - 3 87 3 93 536	ت ت	- 434 5 - 4 1 - 92 1 - 98 439	1 438 3 - 10 - 111 6	7 518 2 2 2 2 2 2 2 2 8 6 1 97 520	1 2 1 7 1 7 9 1 9 1	353	2 338 2 - 2 - 63 1 67 340	3 616  7 7 616	91
See footnotes at end of table											_	(continued)	(P

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (continued) TABLE 12.

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	1969 In Out	1970 In Out
					ı L	arloads -					
Elrose Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	- 278 - 6 - 7 61 1	12 261 3 - 16 - 66 - 97 261	- 215 - 215 3 - 6 57 - 6	191		239 1 239 57 61 239	312 1 312 8 58 67 312	327 1 327 5 62 68 327	- 219 - 1 - 1 50 - 51	- 220 3 3 - 49 52 220	411
Kyle Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc.	n.a.	ر د د	- 328 4 - 4 21 - 29	ب م ب	2 390 6 - 1 18 - 2	254 1 - 254 1 2 - 1 254	534 - 534 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		229 229 2 - 2 9 3 3 1 232	- 249 2 2 2 2	297
Eston Eston Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	11 422 - 5 7 7 105 2 145 429	8 403 - 7 - 17 - 1111 - 143 403	11 496 - 3 15 - 15 121 497	7 447 4 1 9 - 133 447	с. С	3 366 	4 610  198 202 610	1 463 3 12 - 157 157 466	- 371 - 3 14 - 157 157 2 174 373	- 395 - 2 12 134 148 396	2 - 589 2 - 64 8 - 64 74 592
Rosetown (C.P.R.) Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	n.	n.a.	5 259 5 2 28 2 120 1	n.a.	5 290 6 - 17 - 116 4	6 334 6 - 36 - 104 1	3 452 7 - 20 - 98 2 128 454	9 386 6 - 16 - 91 - 91 - 51	11 286 - 1 3 1 17 - 7 44 2 75 290	11 323 2 - 2 - 3 13 - 5 57 328	7 639 14 5 2 26 641
Rosetown (C.N.R.) Products of Agriculture Animals and Products Products of Mines Products of Forests Manufactures and Misc. Total	n.a.	ت ف	n.a.	n.a.	n.a.	n.a.	n.a.	1 308 2 - 3 7 - 199 2 2 209 313	3 205 - 11 1 1 3 - 167 - 174 217	2 278 - 7 1 3 - 113 - 119 285	4 342 1 2 3 3 - 98 - 109 344

REVENUE CARLOAD RAIL TRAFFIC BY DELIVERY POINT IN THE STUDY AREA, 1960-70 (concluded) TABLE 12.

Delivery Point	1960 In Out	1961 In Out	1962 In Out	1963 In Out	1964 In Out	1965 In Out	1966 In Out	1967 In Out	1968 In Out	. 1	1969 In Out		1970 In Out
					ı	- carloads -							
Kindersley								ľ	ŗ	(		(	1
Products of Agriculture								10/6	=	349	4 542	~	/43
Animals and Products								- 10	ı	7	-		1
Products of Mines	n.a.	17 -			- 4	10	1						
Products of Forests								34 -	36	-	- 9	15	1
Manufactures and Misc.								359 7	204		194 9	200	2
Total								419 718		374 22	28 552	228	745

Logs, lumber, all processed natural wood, plywood, shingles, etc. Petroleum products, chemicals, fertilizer, machinery and parts, vehicles, furniture, food and feed products, etc. All grains, seeds, flour, hay and straw, fruits and vegetables, etc. All livestock, poultry, meats, fish, dairy products, etc. Coal, mineral ores and concentrates, cement, brick, asphalt, etc. Manufactures and Miscellaneous -Products of Agriculture Animals and Products -Products of Forests -Products of Mines -

n.a. - Not available.

aTrack abandoned in 1962.  $^{b}\mathrm{C.N.R.}$  traffic only.  $^{c}\mathrm{C.P.R.}$  traffic only.

Source: Canadian Pacific Railways, Department of Research, Montreal, Quebec. Canadian National Railways, Research and Development, Montreal, Quebec.

## Highway Transportation Services

Truck traffic data similar to railway carload traffic showing volume of traffic to and from each community was not available but most communities are served by one or more trucking companies. The names of for-hire common and contract carriers servicing each center are listed in Table 13. Excluded from this list are, of course, farm trucks as well as specialized carriers, private urban and private intercity truckers.

Beadle was the only community too small to classify with a trucking service while 9 out of the 16 hamlets were served by truckers. All remaining centers in the study area, except the village of Hughton, were served by for-hire carriers.

TABLE 13. TRUCK SERVICES BY COMMUNITY, 1971

				ire Carri			
D-14	Kindersley Transport Ltd.	Canadian National	C.P. Transport	Black's Trans- port	Rosetown Expressway Ltd.	Soo- Security Motorways Ltd.	Sask. Trans- portation Co.
Delivery Point						Ltu.	
Too Small to Class	sify						
Beadle	X						
Hamlets							
Snipe Lake	Χ	Χ					
Greenan		Χ		Χ			Χ
Isham				Χ			
McGee	Χ	Χ					
Sanctuary				Χ			
Tyner				Χ			
Richlea		Χ		X			
Wartime		Χ		Χ			Χ
D'Arcy	Х	Χ					
Villages							
Bounty			Χ				Χ
Glidden	Χ	Χ					Χ
Netherhill	Χ	Χ					Χ
Madison	Χ	X					
Fiske	X	Χ					
Macrorie		Χ					
Plato		Χ		Χ			
White Bear				Χ			
Stewart Valley				Χ			
Lacadena		Χ		Χ			
Sovereign			Χ				
Wiseton		Χ					Χ
Brock	Х	Χ					
Towns							
Milden			Χ				Χ
Dinsmore		Χ					Χ
Elrose				Χ			Х
Kyle				X			Χ
Greater Towns							
Eston	Χ	Χ		Χ			X
Rosetown		Χ	Χ		Χ	Χ	Χ
Kindersley	Χ	Χ					Χ

Source: Saskatchewan Shippers' Directory, 1971.



#### PART II

#### AGRICULTURAL CHARACTERISTICS

## Soil Capability for Agriculture

The study area encompasses in excess of 3.0 million acres. The main physiographic regions of the area are the Saskatchewan Rivers Plain, extending north and east of Elrose-Rosetown; the Missouri Coteau Upland, manifested by the Beechy Hills south of Dinsmore and the Bad Hills and Mondou Hills south of McGee and Greenan; and the Snipe Lake Plain in the west. The Rosetown subsection of the Saskatchewan Rivers Plain lies within the Second Prairie Steppe with an elevation of under 2,200 feet. The rising landforms of the Missouri Coteau mark the beginning of the Third Prairie Steppe with elevations up to approximately 2,500 feet in the Beechy Hills.

Soils of the Snipe Lake Plain and the Saskatchewan Rivers Plain are largely Class 2 which have only moderate limitations and as such can support a wide range of agricultural crops. These are the best soils in the study area. Limitations of Class 3 soils are more severe but many of them can, at least in part, be overcome by good management practices. The remainder of the soils in the study area, particularly those of the Missouri Coteau, fall into Classes 4, 5 and 6 which have severe to very severe limitations and for the most part are suited only for production of perennial forage crops.

Surface drainage for about 80 per cent of the area is very local, collecting into potholes, undrained lakes, depressions or glacial valleys. The only significant external drainage is provided by the South Saskatchewan River to the south and east and by Eagle Creek to the north.

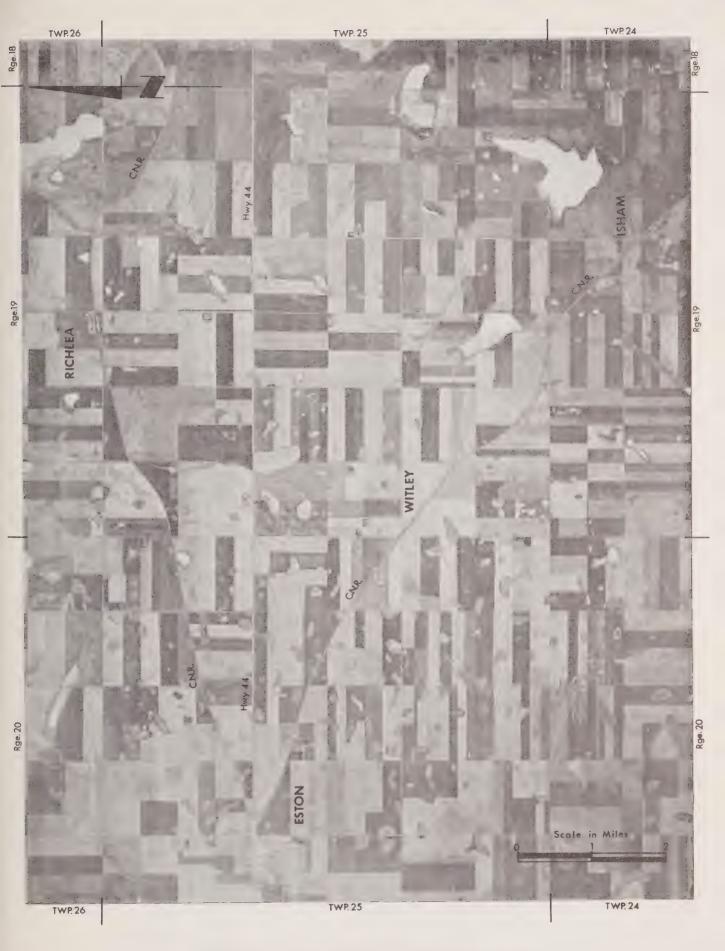
<sup>&</sup>lt;sup>1</sup>For a more detailed description of topography and soil capability in the area see the two Canada Land Inventory maps, <u>Kindersley</u> and <u>Rosetown inserted</u> into the envelope inside the back cover. See also J.H. Richards and K.I. Fung, <u>Atlas of Saskatchewan</u>, Saskatoon: University of Saskatchewan, 1969.

## Sample Aerial Photos

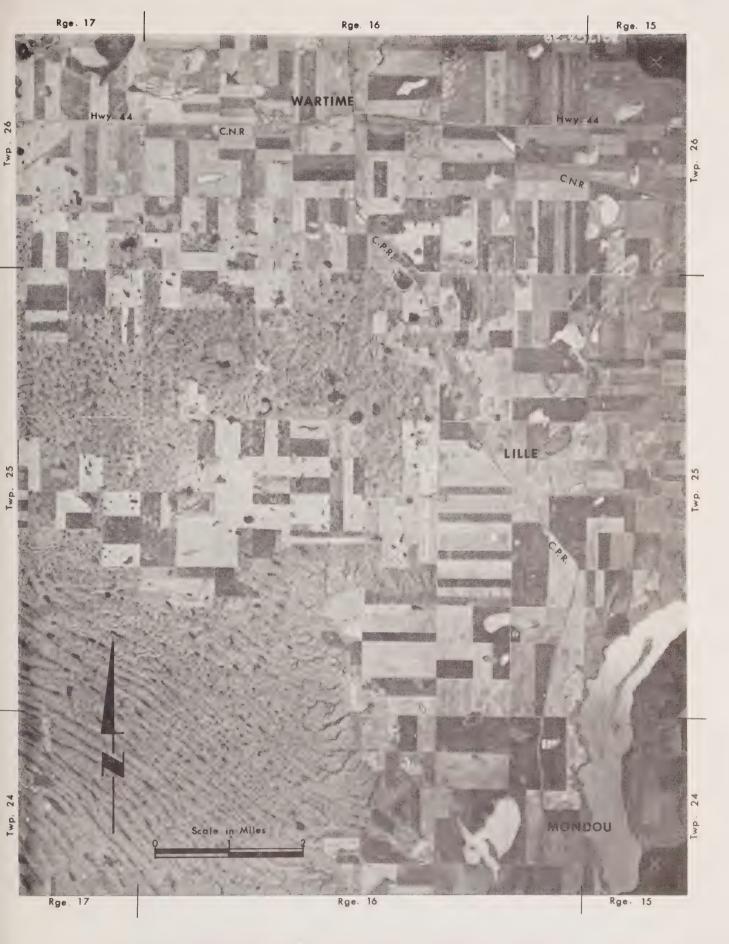
Figures 1 and 2 show aerial photos of the Eston and Wartime areas respectively. These photos were taken in the summer of 1970 for use by the Prairie Farm Assistance Administration in their involvement with Operation LIFT. The purpose of including these photos is simply by way of example to show the kind of aerial photos that are available of the entire Prairie region. Landmarks such as communities, railroads and highways have been identified on the figures.

It is interesting to compare these photos to the soil capability maps referred to earlier and to Saskatchewan soil survey maps. The gently undulating topography at Eston is marked by numerous shallow depressions and sloughs. The strongly rolling topography, unsuitable for cultivation, of the Mondou Hills is clearly visible on the Wartime area photo. Whitebear Lake appears in the lower righthand corner of Figure 2.

<sup>&</sup>lt;sup>1</sup>Soil Survey of Southern Saskatchewan, Report No. 12, University of Saskatchewan, Saskatoon, June, 1944.







## Temperature Norms and Extremes

Temperature norms and extremes within and near the study area are shown in Table 14. Outlook is 22 miles east of Milden, just east of the Saskatchewan River and Leader is 42 miles southeast of Glidden, just south of the Saskatchewan River.

The July mean daily temperatures range from 65.9°F at Rosetown to 68.1°F at Leader while January values range from 2.3°F to 5.5°F corresponding to the same two locations. Rosetown also recorded the highest temperature, 111°F in July, while Outlook recorded the lowest reading of -62°F in February. The climate, therefore, is continental with warm summers and cold winters.

The annual average growing season averages from 173-183 days of which 100-110 make up the average frost-free period.

TEMPERATURE NORMS AND EXTREMES FOR SPECIFIED METEOROLOGICAL STATIONS TABLE 14.

Meteorological Station	January	February	March	April	May	June	χ[n[	August	September	October	November	December	Year
						p -	degrees Fa	Fahrenheit -					
Mean Daily Maximum <sup>a</sup> Mean Daily Minimum <sup>a</sup> Mean Daily Temperature <sup>a</sup> Maximum Temperature <sup>b</sup> Minimum Temperature <sup>b</sup>	11.4 - 6.8 2.3 -53	15.3 - 5.3 5.0 47	28.1 8.9 18.5 65	49.3 26.3 37.8 96	65.5 38.7 52.1 10	72.2 46.4 59.3 108 28	79.4 52.4 65.9 111	77.3 48.7 63.0 110	66.2 40.2 53.2 95	53.5 27.9 40.7 92.	32.0 13.6 22.8 71	18.9 0.3 9.6 61	47.5 24.3 35.9 111
Kindersley Mean Daily Maximum <sup>a</sup> Mean Daily Minimum <sup>a</sup> Mean Daily Temperature <sup>a</sup> Maximum Temperature <sup>c</sup> Minimum Temperature <sup>c</sup>	13.6 -4.2 4.7 44 -46	17.4 -2.2 7.6 47	29.4 10.0 19.7 69	50.2 26.6 38.4 94	65.3 38.5 51.9 4	71.8 46.6 59.2 105 20	79.8 52.4 66.1 107 24	76.4 49.6 63.0 104	66.1 39.9 53.0 10	53.8 28.6 41.2	33.4 13.8 23.6 74	20.7 2.7 11.7 55 -36	48.2 25.2 36.7 107
Mughton Mean Daily Maximuma Mean Daily Minimuma Mean Daily Temperaturea Maximum Temperatured Minimum Temperatured	13.6 -4.0 4.8 52	16.6 7.5 7.5 -43	30.0 11.2 20.6 68 -35	51.1 27.7 39.4 95	66.1 39.7 52.9 10	72.7 47.3 60.0 106	80.9 53.5 67.2 105 34	78.5 49.7 64.1 33	67.5 41.7 54.6 95	54.4 30.2 42.3 90	33.9 15.3 24.6 71	21.0 3.8 12.4 64	48.8 26.2 37.5 106 -48
Outlook Mean Daily Maximum <sup>e</sup> Mean Daily Minimum <sup>e</sup> Mean Daily Temperature <sup>e</sup> Maximum Temperature <sup>£</sup> Minimum Temperature <sup>£</sup>	12.8 3.5 51	16.9 -1.8 7.6 58	29.4 10.5 20.0 68 -51	51.0 28.1 39.6 -16	66.6 40.1 53.4 13	72.9 48.2 60.6 106 21	81.1 53.9 67.5 106 32	78.1 50.3 64.2 30	66.7 41.1 53.9 10	53.9 30.0 42.0 91	32.4 14.5 23.5 71 -30	20.5 2.7 11.6 61 -39	48.5 26.0 37.3 106
Leader Mean Daily Maximum <sup>9</sup> Mean Daily Minimum <sup>9</sup> Mean Daily Temperature <sup>9</sup> Maximum Temperature <sup>1</sup> Minimum Temperature <sup>2</sup>	15.3 -4.4 5.5 -52	19.9 -0.5 9.7 60 -54	32.3 11.8 22.1 70 -36	53.5 28.2 40.9 -20	68.0 39.4 53.7 101	74.1 46.8 60.5 106	83.9 52.3 68.1 29	80.7 49.4 65.1 106	69.3 40.4 54.9 11	56.1 29.7 42.9 93	35.0 14.7 24.9 73 -30	23.0 4.1 13.6 67	50.9 26.0 38.5 106

a Norms are for a full ten-year period of record ending in the early 1960's. No adjustment factor used. DExtremes are for 20-29 years. Cattemes are for 50-59 years. Extremes are for 30-39 years. Norms are for a period of 25 years in the period 1931-1960. In most cases the record existed over the full 30 years. Extremes are for 40-49 years. Same as (e) but not as reliable.

Source: Canada Department of Transport, Meteorological Branch, Toronto, Ontario.

# Precipitation

Table 15 shows monthly and annual precipitation averages in terms of rainfall, snowfall and total at five meteorological stations. Annual average precipitation ranges from 11.5 to 13.3 inches with 64.5 to 70.5 per cent (Leader and Kindersley) of it occurring in the five-month period May to September. June is the single highest precipitation month. Approximately 75 per cent of annual precipitation is in the form of rain.

MONTHLY AND ANNUAL AVERAGE PRECIPITATION FOR SPECIFIED METEOROLOGICAL STATIONS TABLE 15.

Year	10.05 32.8 13.33	9.01 25.3 11.54	9.38 30.3 12.41	9.16 25.4 11.70	8.89 32.0 12.09
December	0.04 5.7 0.61	0.01 3.9 0.40	0.01 5.3 0.54	0.01 4.3 0.44	0.01 4.6 0.47
November	0.08 4.6 0.54	0.14 3.3 0.47	0.13 3.6 0.49	0.07 3.2 0.39	0.07
October	0.48 3.0 0.78	0.37 2.2 0.59	0.56 2.3 0.79	0.41	0.49
September	1.26 0.3 1.29	1.15	1.10	1.15	1.04
August	1.65	1.87	1.35	1.34	1.39
July	2.25 0.0 2.25	1.84	1.97	1.90	1.63
June	2.51	2.21 0.0 2.21	2.31 0.0 2.31	2.59	2.51
May	1.20	0.93	1.28	1.23	1.14
April	0.54 3.6 0.90	0.43 2.8 0.71	0.61 2.0 0.81	0.39 2.1 0.60	0.56 3.1 0.87
March	0.03 4.7 0.50	0.04 4.3 0.47	0.05 5.4 0.59	0.03 4.6 0.49	0.03
February	0.01 4.6 0.47	0.01 3.4 0.35	0.01	0.01 4.6 0.47	0.01
January	0.00	0.01 4.1 0.42	0.00	0.03 4.8 0.51	0.01 5.4 0.55
Meteorological Station	Rosetown Mean Rainfall <sup>a</sup> Mean Snowfall <sup>a</sup> Mean Total Precipitation <sup>b</sup>	Kindersley Mean Rainfall <sup>c</sup> Mean Snowfall <sup>c</sup> Mean Total Precipitation <sup>b</sup>	Hughton Mean Rainfall <sup>C</sup> Mean Snowfall <sup>C</sup> Mean Total Precipitation <sup>b</sup>	Outlook Mean Rainfall <sup>a</sup> Mean Snowfall <sup>a</sup> Mean Total Precipitation <sup>b</sup>	Leader Mean Rainfall <sup>a</sup> Mean Snowfall <sup>a</sup> Mean Total Precipitation <sup>b</sup>

a Norms were computed directly from a period of record of 25 to 30 years within the period 1931 to 1960. In most cases, the record existed over

the full 30 years.  $^{b}$ Total precipitation measured in inches of rain. Ten inches of snow equals one inch of rain.  $^{c}$ These averages are based on a period of 10 to 24 years during the period 1931 to 1960. No adjustment factor has been used.

Source: Canada Department of Transport, Meteorlogical Branch, Toronto, Ontario.

### Hail Insurance

Information regarding annual number of claims filed and amounts of indemnity paid by rural municipality is presented in Table 16, as experienced by Saskatchewan Municipal Hail Insurance Association. Over the nine-year period 1962-70, the average number of claims per year in the 13 R.M.'s ranged from a low of 13 claims in Victory to a high of 73 claims in Snipe Lake. The lowest number of claims occurred in 1967, when an average of 18 claims were filed in each R.M.; and the highest number occurred in 1969, when an average of 49 claims were filed in each R.M. The overall average number of claims filed in each R.M. per year was 39.

The pattern of claims filed is reflected in the amounts of indemnity paid out during the same time period but with some variation. Again, Snipe Lake had the highest nine-year average indemnity (\$49,918) but the R.M. of King George, with an average of 31 claims, showed a lower average indemnity amount (\$6,578) than Victory (\$6,992 paid on an average of 13 claims). The year with the lowest average number of claims did not correspond to the year with the lowest average amount of indemnity paid; and nor did the year with the highest average number of claims correspond to the year with the highest average indemnity payment. Average indemnity was lowest in 1968 and highest in 1963. The overall average amount of indemnity paid in each R.M. per year was \$20,126.

<sup>&</sup>lt;sup>1</sup>This does not necessarily imply that Snipe Lake is a higher hail-risk area than Victory because number of claims filed in a rural municipality also depends on the number of crop-acres insured.

SASKATCHEWAN MUNICIPAL HAIL INSURANCE: NUMBER OF CLAIMS FILED AND AMOUNT OF INDEMNITY PAID IN THE STUDY AREA, 1962 TO 1970 TABLE 16.

Mu	Rural Municipality	1962	1963	1964	1965	1966	1961	1908	1303	13/0	WA./ 11.
Sas	167. Saskatchewan Landing No. Claims Indemnity Paid \$	ing 23 \$ 9,734	i N N	23	20,352	48 5,223	3	14 5,320	79	31	27
226. Vict No. Inc	Victory No. Claims Indemnity Paid	40 \$ 17,564	1,152	3,853	11,149	1,762	1,231	427	33,422	372	13
Lac No In	228. Lacadena No. Claims Indemnity Paid	103	41	09	77,	3,277	1,873	2,780	92	32	42 25,260
255. Coteau No. C	oteau No. Claims Indemnity Paid	119	47	23 4,772	130	32,761	2,646	87 28,040	467,583	12,669	59
256. King No Ind	King George No. Claims Indemnity Paid	\$ 13,097	2,390	16,290	48	59	ZZ	32 6,889	32	44	31 6,578
257. Monet No. C Indem	onet No. Claims Indemnity Paid	\$ 8,906	57 20,474	34	36,295	109	48	318,940	2,075	72 25,515	50 272
Sni No In	259. Snipe Lake No. Claims Indemnity Paid	28 7,785	160	82 86,754	2,555	22 8,007	83	569	163	88 33,516	73
260. New No Ind	Newcombe No. Claims Indemnity Paid	24 \$ 8,089	68 33,461	8,257	28 8,543	48	48 27,955	1,244	33	46 12,539	35
Fer	285. Fertile Valley No. Claims Indemnity Paid	\$ 12,567	13,057	29,045	49	20 6,829	1,256	25 5,480	1,220	78,237	39

SASKATCHEWAN MUNICIPAL HAIL INSURANCE: NUMBER OF CLAIMS FILED AND AMOUNT OF INDEMNITY PAID IN THE STUDY AREA, 1962 TO 1970 (concluded) TABLE 16.

286. Milden No. Claims 34 Indemnity Paid \$ 4 323		1001	2007	1900	196/	1968	1969	0/61	AVG./Yr.
	100	55,412	46	19	848	61 37,560	36	47,27,762	45,233
287. St. Andrews No. Claims Indemnity Paid \$ 11,692	81	34,292	45	2 Nil	18 2,089	51,246	51,545	32	39
288. Pleasant Valley No. Claims Indemnity Paid \$ 15,866	33 6,574	3,895	21 5,223	7,280	Lin Lin	25 9,115	41 26,072	4,310	23 8,704
290. Kindersley No. Claims Indemnity Paid \$ 2,616	120	31,	517	12 5,674	Z Z L :	3,844	44 28,656	86 44,416	36,929
Total Study Area Avg. No. Claims/R.M. 48	63	27	41	35	18	59	49	45	39
Paid/R.M. \$ 15,567	35,852	20,056	15,067	17,137	12,547	11,804	35,693	17,409	20,126

Source: Saskatchewan Municipal Hail Insurance Association, Regina, Saskatchewan.

# Sales of Farm Land in the Study Area

An indication of farm land transactions in the study area is provided by data in Table 17. In the eight-year period 1963-70, 523 transactions were recorded involving an average of 324 acres per transaction. These transactions are representative in the sense that family and other types of deals involving concessions or a premium (e.g. farm land adjacent to a town and possibly purchased for non-agricultural use) were excluded from the tabulations.

Average prices increased from \$60.26 per acre in 1963 to a peak of \$104.83 per acre in 1968. The highest price paid, \$170.00 per acre, was also recorded in 1968. The two years following 1968 showed a marked drop both in price and in number of transactions so that the average price in 1970 was again down to the 1963 level.

Many factors enter into determining farm land values. Superficially, it would appear that at least the following three factors could be cited in explaining the observed price levels: soil classification or productivity, general inflation and the grain marketing situation. Class 1 or 2 land, for instance, is generally higher priced relative to Class 3 or 4. General economic inflation is in time reflected in rising land values. Finally, when grain marketins keep pace with production there is an upward pressure on land values but when the supply of grain becomes too large relative to demand, the pressure on land values is downward. The latter situation occurred following that of 1968.

TABLE 17. REPRESENTATIVE LAND VALUES BY SALES PRICE PER ACRE, 1963 TO 1970

	Number of	Total		Price per	Acre <sup>a</sup>
Year	Transactions	Acreage	Low	High	Average
			\$	\$	\$
1963	50	19,214	17.73	105.00	60.26
1964	71	23,688	18.28	120.52	63.81
1965	95	31,230	15.93	148.43	79.71
1966	107	30,295	20.83	140.62	74.18
1967	81	26,591	20.87	145.20	73.79
1968	65	20,278	31.25	170.00	104.83
1969	37	12,220	31.63	150.00	94.72
1970	17	6,129	23.50	117.50	60.27

<sup>&</sup>lt;sup>a</sup>Less improvements.

Source: Farm Credit Corporation, Regina.

### Disposition of Grain Farm Acreage

The number of acres associated with each delivery point and land use are shown in some detail for three crop years in Tables 18, 19 and 20. In total, between 1962-63 and 1969-70, farm acreage in the study area increased 53,844 acres or 2.2 per cent. At the same time specified acres increased by 329,694 acres or 18.3 per cent. Also, six delivery points too small to classify closed giving up 55,826 acres to neighboring points.

In general, smaller communities experienced decreased acreages while larger communities experienced increases.  $^{\it l}$  All except three delivery points (Juniper, Anerley and Beadle) too small to classify decreased in size between 1962-63 and 1969-70, while nine hamlets, nine villages and all towns and greater towns increased.

Relatively little change occurred in the land use pattern between 1962-63 and 1969-70 in the total study area. Cropping practices followed a two or three-year rotation with about 40 per cent summerfallow, 40 per cent wheat (including durum) and the remaining 20 per cent in other crops and unimproved land. The largest relative changes occurred in acreages devoted to hard wheat, barley and flax. Wheat dropped 6.5 percentage points and barley and flax increased 3.6 and 2.7 percentage points respectively.

Substantial changes occurred, however, in the land use pattern in 1970-71 primarily as a result of the Federal Government's "Operation LIFT" program designed to reduce Canada's wheat surplus. The greatest absolute changes from 1969-70 to 1970-71 occurred in hard spring wheat acreage which dropped by 369,602 acres or 67 per cent and in summerfallow which increased 244,405 acres or 24 per cent. The greatest relative change occurred in rapeseed acreage which increased five-fold. Flax acreage nearly doubled.

It should be noted that "specified acres" as such disappeared in the 1970-71 crop year under Operation LIFT; however, a subtotal in Table 20 of those same crops that comprised specified acres in 1969-70 is shown for comparison purposes. In the study area this acreage decreased 6.6 percentage points.

<sup>&</sup>lt;sup>1</sup>The interested reader may wish to compare this data with that contained in Tables 27 and 39 which show changes in numbers of delivery permits issued and average farm to elevator hauling distances.

<sup>&</sup>lt;sup>2</sup>LIFT is an acronym derived from 'Lower Inventory For Tomorrow'.

TABLE 18. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1962-63

Total		990 01	100.0	3,185	11,990	5,247	13,679	10,757	14,647	19,105	14,484	16,408	13,891	13,909	24,886	(continued)
Uncult. Land		7/15	15.9	327 10.3	1,837	472	1,760	647	539	4,029	941	780	3.5	362	409	00)
Other Crops			1 1	8 6	30	1 1	1 1	1 1	153	1 1	1.0	157	1 1	1 1	1 1	
Rapeseed			i I		i i	1 1	1 1	1 1	1 1	1 1	F - 1	1 1	1 1	1 1	0.0	
Flax		S	0.9	1.3	105	135	250	65	652	385	340	174	155	795	1,080	
Durum		1	7.1	425 13.3	3,291	1,630	1,465	980	1,942	2,800	1,126	1,862	2,125	2,149	1,519	
Specified Acres (Subtotal)		(	8,349	2,393	6,727 56.1	3,010	10,204	9,065	11,361	11,891	12,062	13,435	11,130	10,603	21,868	
Forage		L P	0.7	1.4	160	1 1	320	310	\$ \$	265	158	i i	137	1 1	376	
Summer Fallow		6	4,192	1,018	3,889	2,135	5,317	4,499	5,337	6,484	6,382	7,351	5,953	6,332	10,877	
Rye			1 1	1 1	1 1	1 1	1 1	1 1	140	1 1	1 1	1 1	1 1	1 1	1 1	
Barley		i F	3/5	40	1 1	1 1	710	275	636	350	475	205	356	285	3.6	
Oats			293	3.1	190	1.5	205	284	135	200	295	179	310	212	676	
Wheat	Closed	9	3,414	1,190	2,488	795	3,652	3,697	5,113	4,592	4,752	5,700	4,374	3,774	9,056	
Delivery Point	Too Small to Classify Pym Acres	Per cent Surbiton	Acres Per cent	Glen Payne Acres Per cent	Saltburn Acres Per cent	Lille Acres Per cent	Chipperfield Acres Per cent	Verendrye Acres Per cent	Gaines Acres Per cent	Mondou Acres Per cent	Inglenook Acres Per cent	Penkill Acres Per cent	Sandgren Acres Per cent	Witley Acres Per cent	Fortune Acres Per cent	

GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1962-63 (continued) TABLE 18.

[6]	63	51	44	.0	0.0	0.0	.0	78	0.1	77	337	392	0.0	0.0
Total	24,963	32,051	30,744	28,352	16,401	30,480	20,217	21,878	48,966	22,377	34,337	17,892	42,110	29,778
Uncult. Land	6,356	7,368	3,238	3,266	2,462	838	1,584	1,326	4,096	732	2,414	1,821	736	3,076
Other Crops	1,210	70	1 1	1 1	20	0.0	1 1	100	0.1	50	75	0.0	20	1 1
Rapeseed	1 1	1 1	r i	1 1	1 1	1 1	1 1	1 f	40	1 1	1 1	1 1	1 1	8 8
Flax	20	80	174	624	465	640	450	360	910	140	1,455	35	2,525	1,158
Durum	957	1,215	6,297	5,935	1,273	5,385	2,900	2,335	3,685	4,129	3,427	1,354	4,462	9,950
Specified Acres (Subtotal)	16,420 65.8	23,318	21,041	18,527	12,181	23,607	15,283	17,757	40,195	17,326	26,966	14,672	34,367	15,594
Forage	66	374	190	940	273	184	132	55	402	186	160	230	298	357
Summer Fallow	8,114	11,801	12,436	10,749	5,501	12,455	8,147	9,981	20,537	10,069	14,400	7,020	17,973	11,315
Rye	1 1	1 1	25	90.0	1 1	1 1	1 1	1 1	1 1	1 1	100	1 1	1 1	240
Barley	290	477	358	720	110	994	555	428	1,898	465	966	740	596	20
Oats	655 2.6	857	946 3.1	1,585	290	651	310	290	1,547	255	1,018	457	764	557
Wheat	7,295	9,809	7,086	4,527	6,007	9,323	6,139	7,003	15,811	6,351	10,322	6,225	14,736	3,105
Delivery Point	Juniper Acres Per cent	Tichfield Acres Per cent	Anerley Acres Per cent	Matador Acres Per cent	Ridpath Acres Per cent	Thrasher Acres Per cent	Gunnworth Acres Per cent	Totnes Acres Per cent	Beadle Acres Per cent	Hamlets Leach Siding Acres	Per cent McMorran Acres Per cent	Bratton Acres Per cent	Glamis Acres Per cent	Tuberose Acres Per cent

TABLE 18. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1962-63 (continued)

Delivery Point	Wheat	Oats	Barley	Rye	Summer Fallow	Forage Crops	Specified Acres (Subtotal)	Durum	Flax	Rapeseed	Other Crops	Uncult. Land	Total
Bickleigh Acres Per cent	7,950	518	410	1 1	10,049	290	19,217	1,505	410	1 1	20	2,127	23,279
Snipe Lake Acres Per cent	17,069	636	1,350	1 1	25,348	139	44,542	10,006	2,333	1 1	1 1	3,254	60,135
Greenan Acres Per cent	4,302	325	65	1 1	5,268	9.0	10,050	1,245	160	1 1	50	4,079	15,584
Isham Acres Per cent	11,188	539	188	1 1	18,018	285	30,218	8,266	2,094	i i	0.0	2,116	42,699
McGee Acres Per cent	6,544	376	98	1 1	6,518	448	13,984	462	122	1 1	25	3,246	17,839
Sanctuary Acres Per cent	9,718	1,305	296	1 1	21,478	306	33,103	10,737	328	1 - 8	1 1	5,320	49,488
lyner Acres Per cent	10,982	538	207	1 1	17,719	20	29,466	6,990	489	1 1	1 1	808	37,753
Richlea Acres Per cent	19,441	455	510	1 1	25,799	290	46,495	8,481	1,980	1 1	1 1	428	57,384
Wartime Acres Per cent	9,497	566	1,086	1 1	13,345	150	24,644	5,007	447	1 1	20	5,271	35,389
Forgan Acres Per cent	16,752	1,343	2,023	20	22,263	669	43,070	7,909	502	140	160	3,563	55,344
D'Arcy Acres Per cent	13,225	1,539	1,344	0.2	14,795	925	31,888	2,026	330	1 1	145	5,178	39,567
Villages Bounty Acres Per cent	11,635	1,157	1,638	120	12,501	442	27,493	2,760	310	1 1	65	4,565	35,193
Acres Per cent	16,095	790	1,701	1 1	21,077	1,435	41,098	6,240	552	1 1	ı J	8,320	56,210
Glidden Acres Per cent	17,626	1,279	625	1 1	24,791	203	44,524	7,970	863	1 1	215	4,089	57,661
													1

GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1962-63 (continued) TABLE 18.

Total	47,287	57,202	63,191	33,224	47,266	71,075	81,521	60,310	41,617	71,400	100.0	69,535		58,082
Uncult. Land	4,472	1,324	13,148	6,548	5,057	7,306	17,964	10,417	828	6,014	8,680	5,169	19,362	5,767
Other	243	25	625	35	25	195	194	0.1	1 1	100	395	1 1	335	20 0.0
Rapeseed	t t	1 1	i i	i t	t t	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
Flax	631	2,063	130	85	900	2,221	1,350	850	3,907	911	441	1,900	1,296	1,135
Durum	2,616	8,517	2,257	2,703	6,649	21,642	10,495	13,829	1,948	7,699	3,550	7,100	6,049	10,193
Acres (Subtotal)	39,325	45,273	47,031	23,853	34,635	39,711	51,518	35,149	34,934	56,676	53,719	55,366	92,132	40,967
Forage	314	168	1,906	223	415	920	1,404	849	403	1,622	550	324	837	210
Summer	20,130	26,122	20,494	12,565	19,533	26,651	27,415	22,743	16,979	29,227	27,124	26,821	45,713 38.4	23,362
Rye	40	170	20	1 1	1 1	1 1	95	L +	ιι	300	30	223	n 11	t t
Barley	2,741	2,330	1,555	540	60	190	651	160	2,093	1,750	2,078	3,232	4.6 2,656 2.2	1,765
Oats	1,301	683	2,936	529	570	1,372	2,916	1,474	810	2,361	1,824	2,142	3.1	685
Wheat	14,799	15,800	20,120	9,996	14,057	10,578	19,037	9,923	14,649	21,416	22,113	22,624	32.5 40,475 34.0	14,945
Delivery Point	Netherhill Acres Per cent	Madison Acres Per cent	Fiske Acres Per cent	Macrorie Acres Per cent	Plato Acres Per cent	White Bear Acres	Stewart Valley Acres Per cent	Lacadena Acres Per cent	Sovereign Acres Per cent	Wiseton Acres Per cent	Brock Acres Per cent	Towns Milden Acres	Per cent Dinsmore Acres	Elrose Acres Per cent

TABLE 18. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1962-63 (concluded)

Total	64,821	91,278	112,795	104,204	2,417,994	56,218,393
Uncult. Land	4,102	1,967	8,748	4,013	236,893 2	
Other U Crops	25	15	0.0	190	5,164 2	257,875 12,195,975 0.5 21.7
Rapeseed	t 1	1 1	1 1	1 1	190	151,889 2
Flax	1,340	3,617	2,736	3,174	52,918	346,557
Durum	23,629	15,904	14,614	10,954	325,338	2,706,327
Specified Acres (Subtotal)	35,725	69,775	86,685	85,873	1,797,491	40,559,770
Forage Crops	1,105	134	1,649	729	25,147	1,755,699
Summer Fallow	24,555	37,295	47,146	45,333	968,441	359,911 17,922,504 1,755,699 0.6 31.9 3.1
Rye	t i	20	1 1	0.0	1,619	359,911
Barley	310	895	2,182	2,705	52,641	1,806,685
Oats	1,529	655	2,213	2,313	53,471	
Wheat	8,226	30,776	33,495	34,783	696,172	al 15,454,942 3,260,029 27.5 5.8
Delivery Point	Kyle Acres Per cent	Greater Towns Eston Acres Per cent	Rosetown Acres Per cent	Kindersley Acres Per cent	Study Area Total Acres Per cent	Saskatchewan Total Acres 15 Per cent

Source: Canadian Wheat Board, Winnipeg.

TABLE 19. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1969-70

Total									11,716	13,491	11,290	9,534	15,088	9,274	15,733	24,999	(continued)
Uncult. Land									800	1,180	706	178	216	29	210	5,618	(cor
Other Crops									0.0	1 1	120	1 1	1 1	1 1	110	3.3	
Rapeseed									150	1 1	1 1	å B	1 1	1 1	65	1 1	
Flax									1,558	225	230	475	330	855	1,059	130	
Acres (Subtotal)									9,138	12,086	10,234	8,881	14,542	8,390	14,289	18,426	
Forage									45	40	98	1 1	92	1 1	1 1	113	
Summer									4,279	4,804	5,355	4,975	6,944	4,570	7,510	8,213	
Rye									73	80	60	1 1	8 1	1 1	1 1	1 1	
Barley									758	770	740	453	1,155	490	1,040	652	
Oats									297	10	185	375	75	45	637	556	
Durum									2,236	2,835	872	4.4	1,687	2,075	1,949	1,031	
Wheat		Closed	Closed	Closed	Closed	Closed	Closed	Closed	1,450	3,547	2,924	2,653	4,589	1,210	3,153	7,861	
Delivery Point	Too Small to Classify	Acres Per cent	Surbiton Acres Per cent	Glen Payne Acres Per cent	Saltburn Acres	Lille Acres	Per cent Chipperfield Acres	Per cent Verendrye Acres Per cent	Gaines Acres Per cent	Mondou Acres Per cent	Inglenook Acres Per cent	Penkill Acres Per cent	Sandgren Acres Per cent	Witley • Acres Per cent	Fortune Acres Per cent	Juniper Acres Per cent	

TABLE 19. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1969-70 (continued)

Total	23,159	38,784	26,676	6,319	23,376	16,514	22,767 100.0	57,246 100.0		31,899	25,841	21,904	24,167	27,901	18,803	62,746	(continued)
Uncult. Land	4,573	4,404	2,273	726	3.0	1,377	961	3,403		724 2.3	1,678	2,126	203	2,689	1,284 6.8	3,379	(con
Other Crops	105	1 1	1 1	10	200	140	1 1	40		1 1	1 1	1 1	40	80	120	1 1	
Rapeseed	1 1	160	1 1	1 1	370	1 1	1 1	230		65	i i	95	50	1 1	4 I	1 1	
Flax	8 8	348	1,095	330	1,960	775	1,805	3,500		1,097	1,025	275	4,406	530	1,025	4,631	
Specified Acres (Subtotal)	18,481	33,872 87.3	23,308	5,253	20,146	14,222	20,001	50,073 87.5		30,013	23,138	19,408	19,468	24,602	16,374	54,736 87.2	
Forage Crops	592 2.6	157	1,471	220	50	385	94	274		650	653	220	44	225	95	1,310	
Summer Fallow	8,582	15,802	9,888	2,357	10,619	6,212	10,367	24,520 42.8		13,748	10,670	8,755	10,233	11,266	7,783	26,009	
Rye	1 1	1 1	140	1 1	1 1	120	1 1	490		1 1	80	1 1	1 1	1 1	8 8	1 1	
Barley	747	1,356	955 3.6	345	1,550	913	1,970	4,015		1,708	2,621	792	1,870	160	1,130	4,985	
Oats	668	394	1,741	50	88	219	397	1,130		207	364	409	406	40	510	1,325	
Durum	1,055	5,887	6,408	708	2,386	2,250	1,695	4,163		6,788	1,787	2,063	2,718	9,384	1,871	9,343	
Wheat	6,837 29.5	10,276	2,705	1,573	5,453	4,123	5,478 24.1	15,481		6,912	6,963	7,169	4,197	3,527	4,985	11,764	
Delivery Point	Tichfield Acres Per cent	Anerley Acres Per cent	Matador Acres Per cent	Kldpatn Acres Per cent	Inrasner Acres Per cent	Gunnworth Acres Per cent	Totnes Acres Per cent	Beadle Acres Per cent	Hamlets	Acres Per cent	Acres Per cent	Bratton Acres Per cent	Glamis Acres Per cent	luberose Acres Per cent	Bickleign Acres Per cent	Snipe Lake Acres Per cent	

TABLE 19. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1969-70 (continued)

Total	16,777	42,436	13,369	55,342	46,448	58,453	47,019	54,685	44,850		32,198	65,061	100.0	52,799	55,239	(continued)
Uncult. Land	2,796	500	1,935	5,183	1,481	332	5,056	4,220	4,225		3,322	7,952	6,027	3,532	878	(cor
Other Crops	140	1 1	1 1	35	117	1 1	100	811	40		0.0	190	380	25	1 - 8	
Rapeseed	1 1	1 1	1 1	1 1	1 1	8887	200	1 1	40		1 1	151	1 \$	30	1 1	
Flax	360	6,801	702	1,377	3,386	5,934	2,925	1,951	1.9		1,720	3,726	1,915	1,955	4,284	
Acres (Subtotal)	13,481	35,135	10,732	48,747	41,464	51,302	38,738	47,703	39,680		27,146	53,042	55,993	47,257	50,077	
Forage Crops	140	232	68	734	73	60	725	956	985		315	1,388	385	311	20	
Summer Fallow	6,676	18,567	5,278	23,327	19,817	28,185	17,051	20,608	19,063		12,344	24,243	26,978	23,396	26,199	
Rye	1 1	1 1	t t	1 1	1 1	1 1	570	1,000	420		400	190	400	431	70	
Barley	740	1,749	340	1,060	1,510	5,577	3,616	3,201	3,802		2,497	5,990	4,280	4,338	4,986	
Oats	155	434	235	829	605	670	878	1,228	1,667		530	715	1,331	1,252	322	
Durum	1,840	7,506	985	14,133	11,772	7,457	8,158	6,967	1,570		2,610	7,234	5,375	3,899	6,365	
Wheat	3,930	6,647	3,826	8,670	7,687	9,353	7,740	13,743	12,179		8,450	13,282	17,244	13,630	12,115	
Delivery Point	Greenan Acres Per cent	Isham Acres Per cent	McGee Acres Per cent	Sanctuary Acres Per cent	Tyner Acres Per cent	Richlea Acres Per cent	Wartime Acres Per cent	Forgan Acres Per cent	D'Arcy Acres Per cent	Villages	Bounty Acres Per cent	Hughton Acres Per cent	Glidden Acres Per cent	Netherhill Acres Per cent	Madison Acres Per cent	

TABLE 19. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1969-70 (continued)

Total	75,716	35,401	52,310	75,621	72,920	59,844	48,366	100.0	70,531	77,334	121,351	68,711	65,792
Uncult. Land	13,969	7,404	4,752	7,910	14,734	8,106	466	4,667	6,863	5,259	16,926	7,826	3,159
Other Crops	220	55	264	1 1	127	100	1,790	120	239	1,655	730	09	t I
Rapeseed	1 1	40	80	1 1	1 3	1 1	630	40	40	901	552	230	1 1
Flax	1,183	155	2,390	4,484	1,128	2,330	6,282	2,300	1,236	5,120	2,426	2,995	1,330
Specified Acres (Subtotal)	60,344	27,747	44,824	63,227 83.6	56,931	49,308	39,198	61,529 89.6	62,153 88.1	64,399 83.3	100,717	57,600	61,303
Forage Crops	1,306	468	1,632	1,084	1,928	1,044	335	1,677	2,501	460	827	686	0.00
Summer Fallow	27,345	12,847	20,004	28,816	26,480	22,396	21,002	25,912	29,344	29,316	45,729	25,206	28,274
Rye	1,585	1 1	1 1	230	644	1 1	25	1,995	1,053	415	l 1	383	70
Barley	3,626	855	3,529	1,086	2,300	430	4,684	3,902	5,491	4,722	5,479	5,601	1,267
Oats	2,144	629	627	433	1,651	746	831	1,807	2,486	1,590	1,729	560	781
Durum	3,185	2,454	6,591	22,325	8,619	14,222	5,520	14,090	4,159	11,139	12,003	11,126	22,269
Wheat	21,153	10,494	12,441	9,253	15,309	10,470	6,801	12,146	17,119	16,757	34,950	14,038	7,972
Delivery Point	Fiske Acres Per cent	Macrorie Acres Per cent	Plato Acres Per cent	White Bear Acres Per cent	Stewart Valley Acres Per cent	Lacadena Acres Per cent	Sovereign Acres Per cent	Wiseton Acres Per cent	Brock Acres Per cent	Towns Milden Acres Per cent	Dinsmore Acres Per cent	Elrose Acres Per cent	Kyle Acres Per cent

TABLE 19. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1969-70 (concluded)

Total	98,296	156,690	136,081	2,471,838	57,154,043
Uncult. Land	2,020	9,854	3,671	204,462	9,682,344
Other Crops	40	2,115	220	11,443	270,865
Rapeseed	1 1	1,115	i 1	6,119	821,577
Flax	6,468	11,836	5,401	122,629	678,036
Specified Acres (Subtotal)	89,768 91.3	131,770	126,789	2,127,185	45,701,221
Forage	58	2,045	994	30,935	2,108,161
Summer Fallow	44,186	60,081	60,313	1,002,438	518,900 19,211,660 0.9 33.6
Rye	940	237	945	13,046	518,900
Barley	5,773	11,724	9,280	144,610	2,984,539
Oats	1,085	3,887	1,253	43,212	
Durum	16,551	17,013	13,510	342,263	2,606,821
Wheat	21,175	36,783	40,494	550,681	al 15,872,495 2,606,821 2,398,645 27.8 4.6 4.2
Delivery Point	Greater Towns Eston Acres Per cent	Rosetown Acres Per cent	Kindersley Acres Per cent	Study Area Total Acres Per cent	Saskatchewan Total Acres Per cent

Source: Canadian Wheat Board, Winnipeg.

TABLE 20. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1970-71

Total						12,844	10,028		9,211	5,264	12,533
Uncult. Land						1,179	348		249	32	194
Other Crops						1 1	180		1 1	164	42
Rapeseed						1 1	255		40	1 1	3.4
Flax						931	300		585	704	1,145
Subtotal						10,734	8,945		8,337	4,364	10,732
Forage Crops						0.5	93		57	1 1	1 1
Summer Fallow						7,397	6,482		5,203	3,106	7,681
Rye						140	160		1 1	1 1	1 1
Barley						431	5.6		557	654	834 6.7
Oats						110	272		141	7.7	130
Durum						1,746	493		1,044	407	1,369
Wheat	Closed Closed Closed	Closed	Closed	Closed	Closed	845	8885	Closed	1,335	120	718
Delivery Point	Too Small to Classify Pym Acres Per cent Surbiton Acres	Per cent Glen Payne Acres Per cent Saltburn Arres	Per cent Lille Acres Per cent Chipperfield	Acres Per cent Verendrye Acres Per cent	Gaines Acres Per cent	Acres Per cent	Inglenook Acres Per cent Penkill	Acres Per cent	Acres Per cent	Willey Acres Per cent	Fortune Acres Per cent

TABLE 20. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1970-71 (continued)

Total	27,332	23,562	25,075	26,762	4,931	21,769	15,653	17,599	57,235		26,664	28,572	24,844	23,972	100.0	(continued)
Uncult. Land	7,522	4,504	3,485	2,187	703	891	1,579	451	4,104		1,734	2,638	2,558	194	2,719	(con
Other	1 1	1 1	370	40	1 1	220	70	235	195		220	302	50	135	1 1	
Rapeseed	171	112	1,065	25	50	560	239	1 1	1,184		1 1	1 1	625	190	1 1	
Flax	373	45	1,007	2,224	551	3,031	1,409	1,714	5,208		3,359	3,267	602	5,188	1,714	
Subtotal	19,266	18,901	19,148	22,286	3,627	17,067	12,356	15,199	46,544		21,351	22,365 78.3	21,009	18,265	24,564	
Forage	288	852 3.6	362	1,569	233	92	418	9.0	890		600	627	678	33	265	
Summer Fallow	11,885	10,914	12,227	12,824	2,198	12,363	8,659	10,223	30,060		13,514 50.7	15,313	12,465	14,201	14,605	
Rye	1 1	0.0	1 1	222	1 1	1 1	195	60	360		1 1	80	1 1	1 1	1 1	
Barley	1,187	1,095	1,646	919	198	1,068	1,034	1,907	5,730		2,122	2,673	1,459	1,452	216	
Oats	553	720	592	631	60	105	275	185	1,259		370	520	685	115	111	
Durum	1,397	1,643	2,636	5,064	668	1,877	1,096	792	4,835		3,012	2,007	2,257	1,822	7,704	
Wheat	3,956 14.5	3,667	1,685	1,057	270	1,562	679	1,933	3,410		1,733	1,145	3,465	642	1,663	
Delivery Point	Juniper Acres Per cent	Tichfield Acres Per cent	Anerley Acres	Matador Acres Per cent	Ridpath Acres Per cent	Thrasher Acres Per cent	Gunnworth Acres Per cent	Totnes Acres Per cent	Beadle Acres Per cent	Hamlets	Leach Siding Acres Per cent	McMorran Acres Per cent	Bratton Acres Per cent	Glamis Acres Per cent	Tuberose Acres Per cent	

TABLE 20. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1970-71 (continued)

1,205   9,718   204   13,992   1,781   0.0   6.8.6   100.0     5,777   405   32,254   2,024   31,320   34,479   4.27   4.25   4.39   3,914   64,579     3,190   25,020   2,72   33,103   6,715   0.2   0.2   0.2   1.6   100.0     3,497   163   26,011   601   44,785   3,705   0.2   1.05   100.0     4,52   280   24,409   2,024   35,885   1.81   0.2   1.05   100.0     5,777   2,03   26,011   601   44,785   3,705   0.2   1.05   1,777   100.0     6,288   33,613   2,23   49,135   11,614   970   4.29   4.31   6.2,628     6,289   33,613   2,23   49,135   11,614   970   4.29   6.18   6.10   6.0     6,280   33,613   2,23   49,135   11,614   970   4.29   6.18   6.16   6.2,628     7,5   2,03   2,5,440   2,040   4,522   4.90   5.83   5,134   6.2,639     8,672   7,60   26,129   1,105   44,522   4.90   3.35   6.16   6.10   6.00     8,672   1,4   4,1   4	Oats
5,777         405         32,254         2,024         51,320         8,479         427         439         3,914           8,9         0.6         50.0         21,200         272         33,103         6,715         95         85         635           459         85         5,941         680         10,346         1,180         -         -         2,482           3,497         163         26,011         601         44,785         3,705         -         -         1,77           6,298         -         6,298         -         3,497         163         24,40         28,648         5,285         -         1,67         4,785         3,705         -         2,448         1,77         1,24         -         1,77         1,24         -         1,67         3,88         1,177         1,177         1,174         3,88         1,18         1,177         1,177         1,174         3,87         1,18         40,731         3,87         1,18         40,731         3,85         499         58         1,11         1,17         3,88         1,18         1,17         3,134         3,134         3,134         3,134         3,134         3,134         3,134	985 672 5.7 3.9
3,190         -         22,020         272         33,103         6,715         95         85         635           459         -         24,22         0.7         31,103         6,715         0.2 <t< td=""><td>1,260</td></t<>	1,260
459         85         5,941         680         10,346         1,180         -         -         2,482           3,497         163         26,011         601         44,785         3,706         -         105         7,233           6.2         0.3         46.6         1.1         44,785         3,706         -         106         7,233           745         280         24,409         250         35,648         5,285         -         160         1,628           1,7         0.7         0.7         0.6         83.4         12.4         -         0.4         3.8           1,00         27.1         0.6         83.4         12.4         -         0.4         3.8           1,00         27.1         1,018         40,731         3,821         1,25         0.7         0.7           3,00         75.2         27,346         1,018         40,731         3,821         1,26         6,16           6.3         1,5         25.0         1,105         44,522         3,955         499         583         5,134           6.9         1,2         4,78         2,0         4,17         81.1         5,1	579
3,497         163         26,011         601         44,785         3,705         -         105         7,233           6,298         -         57.1         0.6         35,648         5,285         -         160         1,628           10.0         -         57.1         0.6         35,648         5,285         -         160         1,628           10.0         -         57.1         0.6         38,44         12.4         -         0.4         3.8           6,298         -         33,613         233         49,135         11,614         970         458         451           10.0         -         53.7         0.4         72.5         18,56         1,018         40,731         3,821         1,66         0.7         0.7           3,049         56.7         26,129         1,105         44,522         3,955         499         583         5,134           6.7         1,4         47,62         35,52         2,222         400         335         5,321           6.9         1,3         44,1         35,532         2,222         400         335         5,321           6.0         1,5         54,7	175
745         280         244,409         250         35,448         5,285         -         160         1,628           6,298         -         33,613         233         49,135         11,614         970         458         451           10.00         -         53.77         0.4         78.5         11,614         970         458         451           3,309         753         27,346         1,018         40,731         3,821         1.55         6,160         0.7         0.7         0.7           3,672         760         26,129         1,105         44,522         3,955         499         583         5,134           3,049         567         22,241         1,775         35,532         2,222         400         335         5,321           6.9         1.3         50.8         4.1         81.1         5.1         0.9         1.1         9.4           7.00         5.7         1.4         47,623         6,222         400         0.8         10.7           5.710         -         30,612         1,190         47,623         6,273         840         8,081           5.710         -         30,612         <	1,511
6,298       -       33,613       233       49,135       11,614       970       458       451         10.00       -       53.7       0.4       78.5       11,614       970       458       451         3,309       753       27,346       1,018       40,731       3,821       1,353       565       6,160         3,672       760       26,129       1,105       44,522       3,955       499       583       5,134         3,672       760       26,129       1,105       44,522       3,955       499       583       5,134         6.7       1,4       47.8       2,0       81.4       7.2       0.9       11       9,4         5.049       567       22,241       1,775       35,532       2,222       400       335       5,321         6.9       1,3       4,1       81.1       5,1       0.9       0.8       12.1         5,030       567       4,1       4,1       81.0       6.8       0.9       0.8       10.7         6.9       1,5       56.8       4,3       81.0       6.8       0.5       11.0       0.9       0.8       10.7         7,030	353
3,309         753         27,346         1,018         40,731         3,821         1,353         565         6,160           3,672         7.5         52.0         1,9         44,522         3,955         499         583         5,134           3,672         7.6         26,129         1,105         44,522         3,955         499         583         5,134           3,049         567         22,241         1,775         35,532         2,222         400         335         5,321           2,030         505         18,565         483         27,503         2,297         157         330         3,654           6.0         1.5         54.7         1,4         81.0         6.8         0.5         1.0         10.7           5,710         -         48.0         1,9         47,623         6,273         840         880         8,081           4,026         193         28,326         695         49,877         3,985         237         308         4,381           6.8         0.3         48.2         1,2         3,985         237         308         4,381	642
3,672         760         26,129         1,105         44,522         3,955         499         583         5,134           3,049         567         22,241         1,775         35,532         2,222         400         335         5,321           6,9         1,3         50.8         4,1         81.1         5,1         400         335         5,321           2,030         505         18,565         483         27,503         2,297         157         330         3,654           6,0         1.5         54.7         1.4         81.0         6.8         0.5         1.0         10.7           9,0         -         48.0         1.9         47,623         6,273         840         880         8,081           4,026         193         28,326         695         49,877         3,985         237         308         4,381           6.8         0.3         48.2         1.2         84.8         6.8         0.4         0.5         7.5	1,112
3,049 567 22,241 1,775 35,532 2,222 400 335 5,321 5.32	755
2,030       505       18,565       483       27,503       2,297       157       330       3,654         6.0       1.5       54.7       1.4       81.0       6.8       0.5       1.0       10.7         5,710       -       30,612       1,190       47,623       6,273       840       880       8,081         9.0       -       48.0       11.9       74.8       9.8       11.3       1,4       12.7         4,026       193       28,326       695       49,877       3,985       237       308       4,381         6.8       0.3       48.2       1.2       84.8       6.8       0.4       0.5       7.5	1,538
5,710 - 30,612 1,190 47,623 6,273 840 880 8,081 9.0 - 48.0 1.9 74.8 9.8 1.3 1.4 12.7 4,026 193 28,326 695 49,877 3,985 237 308 4,381 6.8 0.3 48.2 1.2 84.8 6.8 0.4 0.5 7.5	380
4,026     193     28,326     695     49,877     3,985     237     308     4,381       6.8     0.3     48.2     1.2     84.8     6.8     0.4     0.5     7.5	1,329
	1,670

TABLE 20. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1970-71 (continued)

Total	53,355	54,916	76,793	28,820	65,915	74,703	71,888	100.0	49,306	74,949	74,132	83,871	137,686	5 70,605 5 100.0
Uncult. Land	3,630	964	15,598	6,393	8,601	8,482	14,946 20.8	9,175	1,074	5,922	7,880	6,979	20,256	8,856
Other Crops	100	540	555	280	179	299	70	0.0	838	200	382	2,273	1,711	787
Rapeseed	305	491	1,125	1 1	260	205	1 1	80	2,619	516	746	2,743	2,861	794
Flax	4,728	8,320	4,206	266	7,226	7,205	2,579	4,361	9,674	5,673	4,092	9,894	6,880	5,199
Subtotal	44,592 83.6	44,601	55,309	21,881	49,649	58,512	54,293 75.5	46,686	35,101	62,638	61,032	61,982	105,978	54,969
Forage Crops	886	24 0.0	1,926	810	1,618	1,485	2,127	1,215	623	2,157	5,056	1,115	2,904	1.3
Summer Fallow	28,372	30,575	35,541 46.3	12,490	31,486	36,910	29,381	26,423	23,678	37,138	38,093	39,765	64,380	34,483
Rye	1.2	1 1	1,506	1 1	1 1	691	1,141	100	1 1	1,605	1,483	180	445	815
Barley	5,380	5,836	4,301	1,008	5,104	987	2,653	1,145	3,875	3,331	5,405	6,095	7,718	5,919
Oats	1,323	428	2,370	669	722	642 0.9	1,923	997	409	1,001	1,966	1,504	1,958	916
Durum	4,292	4,779	4,632	1,996	6,565	13,277	9,296	11,866	5,301	11,562	5,292	8,539	15,085	6,590
Wheat	3,679	2,959 <i>b</i> 5.4	5,033	4,908	4,154	4,520	7,772	4,940	1,215	5,844	3,737	4,784	13,488	5,331
Delivery Point	Netherhill Acres Per cent	Madison Acres Per cent	Fiske Acres Per cent	Macrorie Acres Per cent	Plato Acres Per cent	White Bear Acres Per cent	Stewart Valley Acres	Lacadena Acres Per cent	Sovereign Acres Per cent	Wiseton Acres Per cent	Brock Acres Per cent	Towns Milden Acres	Dinsmore Acres Per cent	Elrose Acres Per cent

GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE BY DELIVERY POINT, 1970-71 (concluded) TABLE 20.

Total	66,587	107,963	179,491	139,641	2,478,979	57,126,803
Uncult. Land	3,475	2,582	13,706	4,888	231,225	10,201,869 5
Other Crops	i i	830	1,496	860	17,878	193,066
Rapeseed	173	405	6,172	708	30,117	2,163,118
Flax	4,844	13,917	21,698	14,664	230,095	,516,244
Subtotal	58,095	90,229	136,419	118,521	1,969,664	43,052,506 1,516,244
Forage	922	128	3,632	1,915	47,209	3,000,609
Summer Fallow	33,233	58,833 54.5	90,616	76,941	1,246,843	25,050,593
Rye	110	1,089	668	1,098	16,529	
Barley	2,113	7,376	12,535	10,636	160,126	3,545,101 426,360 6.2 0.7
Oats	1,278	1,060	4,048	1,973	44,074	,180,831
Durum	16,770	11,655	14,986	15,457	273,804	2,413,010 2,180,831 4.2 3.8
Wheat	3,669	10,088	9,934	10,501	181,079	otal 6,436,002 <sup>c</sup> 11.3
Delivery Point	Kyle Acres Per cent	Greater Towns Eston Acres Per cent	Rosetown Acres Per cent	Kindersley Acres Per cent	Study Area Total Acres Per cent	Saskatchewan Total Acres 6,4 Per cent

aincludes 112 acres of soft white spring wheat.  $b_{\rm includes}$  120 acres of soft white spring wheat.  $c_{\rm includes}$  4,862 acres of soft white spring wheat.

Source: Canadian Wheat Board, Winnipeg.

# Crop Yields

Detailed crop yield data for each delivery point is shown in Table 21. Where available, the ten-year high, low, range and average yields of spring wheat, durum, oats, barley and flaxseed are given.

The yield pattern of spring wheat and durum were found to be very similar with average yields in the study area of 22.6 and 22.7 bushels per acre. Average yields of the other grains shown were oats 43.6, barley 33.7 and flax 12.5 bushels per acre. A large degree of variability in yields is also apparent from Table 21. The range between high and low yields for each grain in the study area is approximately twice the ten-year average yield value. For example, the range of 71 bushels per acre for barley is slightly more than double the ten-year average value of 33.7 bushels per acre. Of course, this relationship for a particular delivery point is not as pronounced as for the study area as a whole.

TABLE 21. TEN-YEAR AVERAGE YIELDS OF SPRING WHEAT, DURUM, OATS, BARLEY AND FLAXSEED BY DELIVERY POINT, 1961-70

	ear	age		g	200	qu	) i	qu	00	500	7.70	ין ו	۵,	1.5	, X	700	2	m	ee	$q^0$	14	٠ ١٦	2 0	ی د	22	ו רכ	4		*,	4. w	$0^{i}$	_	7	41	22	49	0	ng c	ر ن د	70,	. / Ai	1,	16	
	Ten-Year	Aver			<u>ه</u> ۵		0																				12.		,	7 5	10	15.	9	II.	13.	0	12	7.5	_ ;	23	200	1 =	=	
axseed		Range		(	۰ د	י כ	) I	I <	+ 0	7	000	7 -		9 9	5 ;	4	91	91	13	16	<u></u>	7	2 (	, <u>r</u>		7 5	15			0 12	14	8	ļ	15	15	14	17	7.	9 .	2 -	22	24	10	
Fla		Low		(	0 1	- 4	ا د	1 4	0 0	n (	ס מ	χο r	۰, ۱	4 (	∞ '	9	4	9	7	4	00	) וכ	) T.	) ול	οα	) L	10			טו עכ	c	7	4	Ŋ	2	4	m	×	4 1		- 0	J	2	
		High		(	م و	2 0	71	1 6	- r	<u>.</u>	_ 6	07.0	07	20	5/	20	20	22	20	20	200	200	3 0	200	200	200	25	1		52 50 50	17	25	12	20	20	200	20	20	20	20	25	25	12	
	Ten-Year	Average		1	15.04	13.U-	20.07	000	30.05	29.39	47.19	34.94	36.0	35.0	43.94	36.2	42.27	37.0	31.4	23.21	33 01		27.00	30.7 7	20.00	30 0	39.5	) - ) )		34.3	22.8	35.5	34.4h	31.5	36.3	$35.0^{h}$	32.7	35.12	27.3	36.42	3/.5	27.5	31.0	
Barley		Range			0 0	2 0	ת	ŀ	0 0	40	22	45	20	300	49	32	30	40	43	30	000	2 17	0 5	7 <	2 0	2 0	40	)		55	34	20.	45	32	45	40	20	29	45	25	97	44	30	
Ba		Low		1	2 2	2 5	17	1 0	30	5	35	15	0	12	23	20	25	12	7		000	1 5	0 0	2 5	2 -	200	200	1		10	-	10		5	10	20	10	21	ro	25	07.	2 0	20	
	1	High		1	12	07	30	1 0	20	52	09	09	09	23	72	22	22	55	20	ΔD	2 4	2 0	0 0	200	000	000	000			60	, c	90	7.0	20	52	09	09	20	20	20	09	500	20	
	Ten-Year	Average	acre -		20.09	22.5 <sup>2</sup>	40.02	20.71	35.0~	30.8	45.79	53.0e	40.5	44.0	54.1n	45.4	51.49	53.0	31.3	32 81.	72, 17	100	40.0	41.9-	40°04	0.00	30.0 43.5	2		63.60	26 71	48.3	37 21	34.39	50.5	$33.8^{f}$	38.0	42.54	40.87	47.5h	46.04	37.0	46.2	
Oats		Range	s per		0 !	2 0	07.	2 2	2	20	35	45	70	45	29	40	20	65	30	76	2 5	4 F	0 0	27	, r	0 0	35	5		79	0 <	62	40	45	80	32	70	35	73	40	m <	7 t	90	1
		Low	bushel		20	200	30	0 (	30	10	30	25	10	20	13	25	30	15		0 0	000	07	<u> </u>	2 5	2 -	Ω C	25	2		50	000	σ	ا ا	2 10	10	18	10	25	7	30	30	10	202	5
		High	1		20	30	50	52	40	09	65	70	80	65	80	9	80	80	45	2 14	200	100	10	0 0	200	900	000	2		66 a	0 0	0 0	ר ה	90	06	20	80	09	80	70	63	00	8	)
	en-Year	Average		+	9.09	15.02	0.61	11.50	14.70	20.19	23.4n	25.6	18.5	25.0	$30.5^{h}$	25.3	26.2	23.6	24.8	14.0 16.5h	0.00	-/:77	- 47	2. 4.2	21.5	27.2	24.4	0.+7		25.8	7.07	27.0	0. [0	10.0	25.0	19.54	22.5	$24.0^{h}$	20.4	24.71	24.6	20.00	20.4 20.8h	)
J. F. Lim	5	Range			0	0	∞ ,	~	0	30	23	31	24	28	15	56	30	3.5	200	200	77	07	77	200	17	07	23	S		25	) C	22	5 6	27	30	29	56	20	29	28	58	/-	23	1
Ē	2	Low			6	0 !	2	2	0	10	12	14	9	12	25	14	10	0	, ,	2 0	0 0	71	2 5	7	∞ (	07	- 2	71		15	7 -	10	40	ο α	10	9	10	12	9	12	12	o u	° [	-
		High			6	20	23	<u>∞</u>	19	40	35	45	30	40	40	40	40	40	o c	0 0	000	25	3/	40	35	40	40 2E	22		40	2 0	07	) 10 10	35.0	40	35	36	35	35	40	40	25	30	7
+ 00	Ten-Year	Average			7.0%	16.02	15.50	15.00	14.30	17.99	$25.0^{h}$	26.12	20.0	26.2	$26.3^{1}$	25.1	26.8	22.6	0.77	10.12	10.01	24.3	24.7	21.9	21.5	21.9	24.0	64.3		24.8	0.07	0.00	10.7	7.61	26.2	21.12	23.7	$25.5^{h}$	20.3	25.72	26.3	0.61	93.0	F. C. J
Spring Wheat	5	Range			0	12	5	9	12	27	17	30	23	28	21	24	357	000	0 0	0 5	47	<u> </u>		52	23	23	25	7		25	67	77	0 0	33	30	25	000	19	28	27	28	<u> </u>	200	07
Chr	200	Low			7	2	φ	12	∞	œ	18	10	7	18	14	9	2	0	ء د	71	٥٥	21	00 1	0 ;	0	12	0 .	<u>0</u>		10	<u>۵</u> •	4.0	7	0 0	ا ک تر	- - - - -	12	91	9	3	12	ω (	٥٢	71
		High		ify	7	22	23	9	20	35	32	40	30	45	35	40	45	37	50	30	30	30	32	35	33	35	32	32		35	40	97	40	30	45	30	000	35	34	40	40	26	35	2
		Delivery Point		Too Small to Classify	Pym	Surbiton	Glen Payne	Saltburn	Lille	Chipperfield	Verendrye	Gaines	Mondou	Inglenook	Penkill	Sandaren	Mi+100	Fortun	Juni-	Juniper	lichtield	Anerley	Matador	Ridpath	Thrasher	Gunnworth	Totnes	Beadle	Hamlets	Leach Siding	McMorran	Bratton	Glamis	luberose	Spickleigh Spickleigh	Greenan Greenan	T C C C C C C C C C C C C C C C C C C C	M G G G	Sanctuary	Tyner	Richlea	Wartime	Forgan	D.Arcy

TABLE 21. TEN-YEAR AVERAGE YIELDS OF SPRING WHEAT, DURUM, OATS, BARLEY AND FLAXSEED BY DELIVERY POINT, 1961-70 (concluded)

	Average		2.5.5.6 2.5.5.6 3.5.5.6 3.5.5.6 3.5.5.6	13.1 13.6 13.2	12.2 <sup>i</sup> 13.0 13.7	12.57
מאאמתח			130 130 130 130 130 130 130 130 130 130	15 120 14 15	10 1	26
2000	Low Range			0.04 c	887	<b>-</b>
	High Lo		72 72 72 72 73 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75	20 25 20 20	18 25 25	27
	en-Year Average		27.2 33.1 33.2 33.2 40.4 40.4 40.4 227.5 36.0 31.5 37.5 31.5 31.8	31.5 33.0 34.0 36.1	34.4 <sup>1</sup> 35.2 37.5	33.77
ובא	Range		37 33 33 33 37 37 40 40 40	45 35 50 30	30 43 45	7.1
Dar	Low R		330 330 15 15 115 115	10 10 20	20 12 15	
	High		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52 50 50	50 55 60	72
	Ten-Year Average	acre -	31.0 35.5 47.0 59.39 38.5 65.79 65.79 43.0 37.2 51.71	40.5 43.4 49.7 43.0	48.3 <sup>1</sup> 49.5 49.0	43.67
Oats	Range	s per	35 35 55 55 55 50 70 70 70 70 65 65 65 70 70 70 70 70 70 70 70 70 70 70 70 70	50 60 40	50 60 59	94
	Low	bushels	10 25 25 20 20 20 20 20 20 20 20 10 10	10 20 20 20	25 25 21	ις
	High	ī	45 80 80 70 70 75 80 80 80 80 80 80 80	65 80 60	75 85 80	66
	Fen-Year Average		$\begin{array}{c} 18.6 \\ 20.2 \\ 21.9 \\ 22.8 \\ 22.6.7 \\ 22.6.7 \\ 22.8 \\ 22.9 \\ 23.0 $	22.3 22.3 21.6 23.4	22.2 <i>i</i> 25.8 25.1	22.7
Durum	Range		22 22 23 23 24 25 25 27 27 27 27 27 27 27 27 27 27 27 27 27	27 26 20 15	23	41
ă	Low		880011888	8 6 0 1 2 1 2 2	12	4
	High		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35 30 30	35 40 38	45
eat	Ten-Year Average		19.9 22.7 22.7 25.7 26.1 17.1 23.7 23.0 23.0 25.0 25.0 21.5	22.8 22.5 22.6 22.7	23.0 <sup>i</sup> 24.6 25.6	22.6
Spring Wheat	Range		22 22 23 23 23 23 23 23 23 23 23 23 23 2	27 27 25 15	26 26 23	41
Spr	Low		80 10 10 10 10 10 10 10 10 10 10 10 10 10	ထထထက္	12 10 15	4
	High		000000000000000000000000000000000000000	30 33 30 30	38 38	45
	Delivery Point		Villages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiscton Brock	<i>Towns</i> Milden Dinsmore Elrose Kyle	Greater Towns Eston Rosetown Kindersley	Study Area Total

a) year average  $^{2}$ 3 year average  $^{2}$ 3 year average  $^{2}$ 5 year average  $^{2}$ 5 year average  $^{2}$ 6 year average  $^{2}$ 7 year average  $^{2}$ 7 year average  $^{3}$ 7 year average  $^{3}$ 8 year average  $^{3}$ 9 year average of the above averages weighted by the number of years each represents.

Source: Canadian Wheat Board, Winnipeg.

# Protein Content of Wheat

The percentage of protein content in hard red spring wheat has recently become more important in the grading and marketing of wheat. Regulations under the new Canada Grain Act incorporate protein content in the new grading system. While there are other quality factors to consider, protein content is closely watched by millers and bakers.

Table 22 shows the protein content for samples of wheat by delivery point over a nine-year period. Totals for the study area and the province are also shown. It can be seen from the data that protein content varies considerably from year to year and from region to region. The lowest percentage recorded was 10.1 per cent at Bratton in 1968. This was still above the provincial low of 9.5 per cent that year. The highest level reached 19.3 per cent at Eston in 1964 and this equalled the provincial high that year. The majority of the readings are in the 13 to 15 per cent range. In terms of annual averages the highest recorded occurred at Tichfield in 1963, 17.9 per cent and the lowest occurred at Matador in 1968, 11.4 per cent. However, these "averages" are each based on only one sample, which points up the need for caution when reading these data. The number of samples at each delivery point in any one year ranges from 1 to 15 with the majority being in the neighborhood of 3 to 5 samples.

Only two points in the study area, Tichfield and Anerley consistently showed protein content of 14.0 per cent or higher over the nine years. The average protein content levels in the study area were equal to or slightly greater than the Saskatchewan levels in every one of the years shown.

TABLE 22. PROTEIN CONTENT OF HARD RED SPRING WHEAT BY DELIVERY POINT, 1962 TO 1970

		1000		000		0.00		0.00				200				0.00		020
Delivery Point	Aver-	Range	Aver- age	Range	Aver-	Range	Aver-	Range	Aver-	Range	Aver-	807 Range	Aver-	Range	Aver-	Range	Aver-	Range
Too Small to Classify Surbiton Glen Payne Saltburn Lille Chipperfield Verendrye Gaines Mondou Inglenook Penkill Sandgren Witley Fortune Juniper Tichfield Anerley Matador Ridpath Thrasher Gunnworth Counnworth Totnes Beadle	Stora 16.1 16.1 15.2 15.2 16.4 16.4 16.6 16.4 16.6 14.8 14.8	ge only n.a. n.a. n.a. n.a. n.a. n.a. 15.8-17.0 n.a. 14.4-14.7 14.4-14.7 15.0-15.6 14.0-15.6 14.2-15.5	S to	Storage only Closed 6.6 n.a. 5.1 n.a. 5.1 n.a. 6.8 l.a. 15.2-17.2 6.8 l.a. 15.2-15.6 4.6 l.a. 15.2-15.6 4.7 l.a. 15.2-15.6 5.9 l.s. 4-16.5 5.9 l.s. 4-16.5 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.4 l.s. 15.8-15.9 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.3 n.a. 6.4 l.a. 15.2-15.6 6.3 n.a. 6.3 n.a. 6.4 n.a. 6.5 n.a. 6.5 n.a. 6.5 n.a. 6.7 n.a. 6.8 n.a. 6.9 n.a.	S C C C C C C C C C C C C C C C C C C C	osed 15.2 - 10.6 15.2 - 10.6 16.0 - 16.8 n.a. n.a. 14.7 - 16.7 15.0 - 16.8 15.5 - 16.8 15.2 - 16.8 15.2 - 16.8 15.2 - 16.8 15.2 - 16.8	115.3 116.9 116.0 116.0 116.0 117.7 113.7	13.0-17.2 11.4-14.2 15.0-17.8 10.0-17.8 10.0-17.1 12.6-17.1 13.7-14.5 13.2-14.5 13.2-14.5 13.2-14.5	2.2.1.2.2.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	12.8-12.9 n.a. n.a. n.a. n.a. 11.7-13.5 13.1-14.1 12.8-14.1 12.3-15.2 13.1-14.1 12.3-15.2 13.1-14.1 13.1-14.1 13.1-15.2 13.1-14.1 13.1-14.1	14.6 15.8 17.2 17.2 17.4 17.4 17.4 17.6 17.8 17.8 17.8 17.8	14.2-15.8 n.a. n.a. n.a. n.a. n.a. 12.5-14.0 n.a. 13.1-16.1 14.1-16.1 14.1-16.1 13.3-14.4 13.3-14.4 13.6-14.4	13.0 13.0 13.8 13.3 14.2 14.2 14.2 14.2 14.2 14.3 11.4 11.4 11.4 11.4 11.4 11.4 11.4	12.7-13.4 12.8-14.8 13.0-14.5 13.0-14.5 13.0-15.0 14.2-14.3 14.2-16.1 13.6-16.1 13.6-16.1 13.6-16.1 13.6-16.1 13.6-16.1	Stora Stora 14.1 13.8 13.8 15.3 15.3 14.9 14.9 14.1	15.2-15.3 15.2-15.3 16.2-15.3 17.3-16.1 17.3-14.0 17.5-14.0 17.5-14.0 17.5-14.0 17.5-14.0	Storag 175.0 Storag 175.0 Storag 175.0 175	ge only n.a. n.a. n.a. n.a. n.a.
Hamlets Leach Siding McMorran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime Forgan	441 441 661 671 671 671 671 671 671 671 671 67	13.6-14.9 13.1-15.8 14.6-15.4 14.4-15.2 14.4-17.0 14.1-15.5 15.0-16.1 14.2-17.0 14.2-16.8		n.a. n.a. 14.6-15.9 14.5-15.0 11.6-16.7 16.8-17.4 14.4-16.3 15.7-18.9 14.3-18.9	15.2 16.4 16.4 15.6 15.6 16.2 16.2 16.2 16.2	13.7-16.6 14.6-14.9 15.8-16.9 14.0-16.1 15.3-15.9 14.5-17.0 15.6-16.8 15.6-16.8 14.4-16.7 14.2-16.1 15.0-16.7	13.2 14.2 115.5 115.5 115.2 115.2 114.7 114.5 115.5	13.1-13.3 14.1-14.3 13.6-16.2 12.5-16.1 13.6-15.2 14.4-16.2 16.8-17.3 14.4-16.2 16.8-17.3 11.16.2 12.6-15.9 12.7-18.6	2.00 to 4 co 6 co 2	12.0-14.3 13.4-13.9 11.5-12.7 10.8-13.3 12.4-14.5 13.2-14.1 13.2-14.1 13.0-13.6 12.9-15.3 12.9-15.3 13.0-14.2 13.0-14.2 13.0-14.3	15.5 115.5 115.5 115.2 115.0 115.0 115.0 115.0	13.5-16.8 14.0-16.9 14.9-16.9 13.6-14.2 13.5-15.2 13.5-15.2 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 14.5-14.0 15.5-14.0	16.9 112.6 113.9 113.9 114.8 114.8 114.8 114.8 113.9	14.6-16.3 15.2-16.8 13.4-15.5 14.2-15.2 14.2-15.2 10.9-14.2 11.5-14.8 11.5-14.8 11.5-15.4 11.5-15.4 11.5-15.6 11.5-15.6 11.5-15.6 11.6-16.2	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14.1-15.5 n a. 14.6-16.1 12.5-14.5 15.5-14.5 13.8-15.4 n.a. 12.3-14.8 12.3-14.8 12.3-14.8 12.3-15.5 12.3-16.5 n.a.	15.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17	n.a. 13.6-14.5 n.a. n.a. 14.0-14.9 ge only 12.6-15.4 14.4-14.9 14.4-14.7
Millages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacdena Sovereign Wiseton Brock	0.400 w 0.0 8 8 8 0 4 0 V	13.4-15.9 15.7-15.7 13.5-15.5 14.7-16.0 15.1-17.3 14.1-15.6 10.8-15.9 13.8-16.6 14.9-15.1	7.5.0 7.5.0 7.5.0 7.5.0 1.0.0 1.	3.5-17.6 14.7-17.7 12.7-17.7 13.0-16.9 12.6-16.4 14.6-17.3 15.5-15.6 15.2-16.2 16.1-17.0 13.6-16.1	17.1 16.6 16.7 16.7 16.7 16.7 16.6 116.4	16.7-17.7 15.0-15.7 13.7-16.1 14.4-16.2 16.4-17.1 13.9-15.5 16.8-18.3 16.2-16.5 17.3 17.3 17.3 17.3 17.3 17.3 17.3 17.3	15.7 115.7 115.0 115.0 115.0 115.0 115.0 14.3	13.7-17.3 13.8-17.9 13.8-17.9 13.4-15.8 12.1-14.0 14.6-15.7 12.7-17.3 14.5-16.8 14.5-16.8 13.1-16.8	33.22 33.22 33.22 33.22 33.23 33.23 33.23 33.23 33.23 33.23 33.23 33.23 33.23 33.23	11.5-14.4 11.5-14.5 11.3-14.5 10.8-14.6 11.0-14.6 13.9-14.0 12.0-13.4 12.9-15.1 12.9-15.1 13.3-16.0	15.9 13.9 13.9 14.6 14.6 14.6 13.9 13.9	15.7-16.2 14.3-16.6 12.6-15.7 13.0-15.0 13.9-15.9 14.4-14.8 13.7-14.8 13.7-14.8 13.7-14.8	12.1 14.5 14.2 14.2 14.3 14.9 14.9	10.9-13.7 12.9-15.8 13.2-15.8 12.3-16.2 11.8-16.0 12.5-18.2 13.2-15.0 13.7-15.6 13.7-15.6 13.7-15.6 13.7-15.6	24444444444444444444444444444444444444	12.5-14.4 11.2-16.2 14.7-16.2 12.7-16.4 11.9-13.1 11.9-16.2 14.7-16.4 11.3-16.4 11.3-16.4 11.3-16.0 11.3-16.0	13.1 13.9 13.9 13.9 13.9 17.5 17.5 14.1 13.1 13.1 13.1	13.7-13.7 13.7-13.8 13.4-14.5 11.7-15.3 11.7-15.3 11.9-14.6 11.9-13.8 11.9-13.8 11.9-13.8

See footnotes at end of table

TABLE 22. PROTEIN CONTENT OF HARD RED SPRING WHEAT BY DELIVERY POINT, 1962 TO 1970 (concluded

Aver- Range Aver- Range Aver- Range Aver- Range Aver- Range Age Age- Range Age Age- Range Age Age- Range Age Age Age Age Age Age Age Age Age A	- 0	200	0061	1961	1900		
14.7 13.6-15.9 15.8 12.5-17.4 15.4 14.4-16.5 15.6 14.6-16.2 14.2 12.9-15.6 13.6 13.1-17.9 14.9 14.0 15.5 14.0-15.5 14.9 14.0-15.5 15.8 15.3 14.8-15.6 14.8 14.7-14.9 15.5 14.4-16.5 15.3 14.7-16.1 14.8 13.0-17.3 rea <sup>a</sup> 15.0 10.8-17.6 15.4 11.6-18.9	Range	Aver- Range age	Aver- Range age	age Aver- Range	Aver- Range age	Aver- Range	Aver- Range
14.7 13.6-15.9 15.8 12.5-17.4 15.4 14.4-16.5 15.5 14.6-16.2 14.2 12.9-15.6 15.6 13.1-17.9 14.9 14.0-15.5 14.9 14.0-15.5 15.8 14.9 14.0-15.5 15.8 15.3 14.8-15.6 15.3 14.7-14.9 15.5 14.4-16.5 15.3 14.7-16.1 14.8 13.0-17.3 rea <sup>a</sup> 15.0 10.8-17.6 15.4 11.6-18.9		- per cent -					
15.4 14.4-16.5 15.5 14.6-16.2 14.2 12.9-15.6 15.6 13.1-17.9 14.0 14.0-15.5 15.6 13.1-17.9 14.0-15.5 15.3 14.8-15.6 14.8 13.0-17.3 14.7-16.5 15.3 14.7-16.5 15.3 14.7-16.5 15.3 14.7-16.5 15.3 14.7-16.5 15.3 14.7-16.5 15.0 10.8-17.6 15.4 11.6-18.9	14.8-16.5 14.2	12.9-15.4	13.3 10.5-14.7		14.1 11.4-15.3	15.0 14.4-15.5	13.4 12.5-14.2
14.2 12.9-15.6 15.6 13.1-17.9 14.0-15.5 15.9 14.0-15.5 14.0-15.8 15.3 14.8-15.6 14.8 14.7-16.1 14.8 13.0-17.3 rea <sup>a</sup> 15.0 10.8-17.6 15.4 11.6-18.9	17.0-17.3 15.6	14.6-16.1	13.4 12.9-13.9	9 14.4 11.8-17.0		8.4	
14.9 n.a. 14.9 14.0-15.5 15.3 14.0-15.8 15.3 14.8-15.6 14.8 14.7-14.9 15.5 14.4-16.5 15.3 14.7-16.1 14.8 13.0-17.3 rea <sup>a</sup> 15.0 10.8-17.6 15.4 11.6-18.9	13.9-19.2 15.1	13.6-17.5	13.8 13.1-14.6				n.a. n.a.
15.3 14.0-15.8 15.3 14.8-15.6 14.8 14.7-14.9 15.5 14.4-16.5 15.3 14.7-16.1 14.8 13.0-17.3 rea <sup>a</sup> 15.0 10.8-17.6 15.4 11.6-18.9	16.0-17.6 14.0	13.3-14.8	13.9 12.9-15.4			14.9	13.5 n.a.
15.3 14.7-16.9 15.5 14.4-16.5 14.8 14.7-16.9 15.5 14.4-16.5 15.3 14.7-16.1 14.8 13.0-17.3 15.0 10.8-17.6 15.4 11.6-18.9	0	0 0 0 0 0 0	,	ר ער		7 9 12 7-16 7	13.6 13.3-13.9
15.3 14.7-16.1 14.8 13.0-17.3 15.0 10.8-17.6 15.4 11.6-18.9	14.3-19.3	13 5-14.9	12.5	R 13.9 11.1-15.6	13.7 12.7-14.6	14.0 11.9-14.8	12.9 11.1-13.7
15.0 10.8-17.6 15.4 11.6-18.9	14.3-15.2 14.0	12.3-17.7		14.8		13.9 11.4-15.6	14.0 12.1-15.0
	12.4-19.3 14.5	5 11.6-18.6	13.3 10.5-16.	0 14.3 11.1-17.5		14.2 10.1-18.2 14.5 11.3-16.7 13.9 11.1-16.2	13.9 11.1-16.2
	10 4-19 3 13 7	9 5-18 9	13.3 9.5-17.	7 14.1 9.0-19.1	15 3 10 4-10 3 13 7 9 5-18 9 13.3 9.5-17.7 14.1 9.0-19.1 14.2 9.5-19.7 14.0 9.1-19.3 13.4	14.0 9.1-19.3	13.4 8.8-16.8

n.a. - Not available.

Averages weighted by number of samples.

Source: Grain Research Laboratory, Canadian Grain Commission, Winnipeg.

## Prairie Farm Assistance Act Payments

Figure 3 shows the number of times during the past 31 years PFAA payments were made to grain farmers in each township because of crop failure. A value of 12, for example does not mean that all farmers in that township received payments in 12 years out of 31 but that some farmers did. Thus, the map gives an indication of crop failure frequency in the study area.

The least number of payments in the study area occurred at Richlea where farmers in one township received payments only once. Five townships in the vicinities of Snipe Lake, Madison and Matador received payments three times. Considerable variation exists, even between adjacent townships. The greatest number of years in which payments were made were 17 at Tichfield and north of Rosetown.

1939 - 1969
Payments
Act
Assistance
Farm
Prairie

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4	-	9	0	2	2	13	McGeore N	5	Chaparateld	Greenan	-	a co	Lacadena	o Bear	2	m/	=	12	4	9	91	
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3.6	3.8	4	e.	25	er.	e,	Ů,	× ×	~ diHSI	5.6	5.2	4	~	~	~	~	6	· ·		9	٠,	es.

### Farm Size and Land Tenure

The distribution of grain farm sizes in the Eston-Elrose study area is shown in Table 23. Class sizes are arranged in intervals of 159 acres such that 160, or a multiple of it, falls at the midpoint of each class size. More detailed statistics of farm sizes, grouped by delivery point, are given in Table 24 for crop years 1962-63 and 1969-70.

The "number of farms" in this context is actually the number of grain delivery permits, and farm sizes are derived from the acreages recorded in each permit book. To the extent that individual farm operational units are, in many instances, associated with more than one delivery permit the "number of farms" is overstated while farm sizes are understated. With this in mind the total number of farms declined by 423 from 3,318 to 2,895 or 12.7 per cent. Both in 1962-63 and in 1969-70 the size group containing the most number of farms was 561-720 acres. The mode, or that size of farm occurring most frequently in the study area, actually dropped from 640 to 320 acres (Table 24).

The mean farm size increased by 16.4 per cent from 730 acres to 850 acres (Table 24). The mean increased at every delivery point except Thrasher and Isham where the averages declined 20 acres and 18 acres respectively.

The standard deviation is a statistical concept used to measure the variability of data. As the variability of farm sizes above and below the mean increases so does the standard deviation. Hence, since the standard deviation in the study area in 1969-70 was greater (622 acres) than in 1962-63 (514 acres), it must be concluded that there was greater variability of farm sizes in 1969-70 than in 1962-63. Examination of Table 23 bears this out.

A further interpretation of the standard deviation is that the interval between one standard deviation below the mean to one standard deviation above the mean usually includes about 67 per cent of the observations. For example, in 1969-70 the number of farms in the interval 228 acres (850 minus 622) to 1,472 acres (850 plus 622) should account for about two thirds of the total 2,895 farms. In actual fact, approximately 85 per cent of the farms fall into this interval. Again, examination of Table 23 shows that there is a greater concentration of farms at the lower end of the size groups than at the upper end, resulting in a skewed distribution rather than a normal distribution. Standard deviation values at virtually all delivery points are high in relation to the means (Table 24) indicating a wide range of farm sizes.

In the study area the median farm size increased from 640 acres to 780 acres. This means that in 1962-63 exactly one half the number of farms were less than 640 acres in size, whereas in 1969-70 the dividing line rose to

<sup>&</sup>lt;sup>1</sup>The assumption underlying this interpretation is that the number of observations is sufficiently large and that their distribution is normal.

780 acres. Considering that the median size as well as the mean size increased we can conclude that the number of large farms increased relative to the number of small farms.

The general trend with respect to land tenure has been toward a greater percentage of land being owned by farm operators rather than rented (Table 25). For the total study area the percentage of land owned increased from 71.5 to 75.9 per cent. In 1969-70 the percentage owned values ranged from 45.5 per cent at Mondou to 88.6 per cent at Beadle.

TABLE 23. DISTRIBUTION OF GRAIN FARM SIZES IN THE STUDY AREA, CROP YEARS 1962-63 AND 1969-70

	1962	2-63	1969	<del>-</del> 70
Size Group _(acres)	Number of farms	Per cent of Total	Number of farms	Per cent of Total
1 - 240 241 - 400 401 - 560 561 - 720 721 - 880 881 - 1,040 1,041 - 1,200 1,201 - 1,360 1,361 - 1,520 1,521 - 1,680 1,681 - 1,840 1,841 - 2,000 2,001 - 2,160 2,161 - 2,320 2,321 - 2,480 2,481 - 2,640 2,641 - 2,800 2,801 and over	265 597 478 648 377 339 202 142 85 64 43 20 14 12 7 5	8.0 18.0 14.4 19.5 11.4 10.2 6.1 4.3 2.6 1.9 1.3 .6 .3 .4 .2 .2	219 430 329 448 332 338 213 196 115 81 59 30 26 20 14 5 35	7.6 14.8 11.4 15.5 11.5 11.7 7.3 6.8 4.0 2.8 2.0 1.0 .9 .7 .5 .2 .2 1.1
Study Area Total	3,318	100.0	2,895	100.0

Source: Delivery Permit Books, Canadian Wheat Board, Winnipeg.

AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 TABLE 24.

Delivery Point	No. of Farms	Mean Size	Std. Dev.	Maximum Size	Minimum Size	Median Size	Modal Size(s)	Modal Size Group(s)
					- acres	I (5)		
Too Small to Classify Surbiton 1962-63	10	1,097	818	3,040	320	800	800	401-560
1969-70	Closed	for storage	a)					
Glen Payne 1962-63	S	637	190	945	480	640	480, 640	401-560
1969-70	Closed							
Saltburn 1962-63	19	631	300	1,120	160	640	640, 800	561-720
1969-70	Closed							)
Lille 1962-63	Ŋ	1,049	859	2,376	151	096	No Mode	No Modal Size Group
1969-70	Closed	Closed for storage	υ					5
Chipperfield 1962-63 1969-70	20 Closed for	684 for storage	357 e	1,440	160	640	320	561-720
Verendrye 1962-63 1969-70	18 Closed for	597 for storage	381 e	1,337	160	478	320	241-400
Gaines 1962-63	19	771	460	1,517	107	777	160, 320, 486	1-240
1969-70	12	985	564	2,417	480	789	480	1,361-1,520 401-560
See footnotes at end of table	f table							(continued)

AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (continued) TABLE 24.

Delivery Point	No. of Farms	Mean Size	Std. Dev.	Maximum Size	Minimum Size	Median Size	Modal Size(s)	Modal Size Group(s)
					- acres	- 5		
Mondou 1962-63 1969-70	19	1,006	643 783	2,720	320 160	800	640 No Mode	561-720
Inglenook 1962-63 1969-70	21 16	902	328	1,261	160	480	480	401-560
Penkill 1962-63	27	809	327	1,410	160	487	096	241-400
1969-70	13	807	321	1,282	320	801	096	881-1,040
Sandgren 1962-63 1969-70	24 18	579 804	244	1,118	160	627 640	320 <b>4</b> 80	561-720 401-560
Witley 1962-63 1969-70	26	535	404	1,751	160	320 480	320	241-400 1-240 881-1,040
Fortune 1962-63 1969-70	35	661	352	1,525	154	640	640 320, 640	561-720 241-400 561-720
Juniper 1962–63 1969–70	34	728	673	3,940	158	480	480 480	241-400 401-560
Tichfield 1962-63 1969-70	48 30	668	324 375	1,460	160	640	320 320	241-400 241-400
See footnotes at end	d of table							(continued)

AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (continued) TABLE 24.

Modal Size Group(s)		561-720 241-400	241-400 561-720	881-1,040	241-400 241-400	401-560 401-560	241-400 561-720	401-560 1-240	561-720 241-400	561-720 561-720	721-800	(continued)
Modal Size(s)		640 320	320	096	320 No Mode	480, 1,280 1,280	160, 320	160	640 320, 640	640 640	320, 640, 800	
Median Size	ı	640	720	096	615 873	754 800	557	640	640	776	793	
Minimum Size	- acre	75	160	320	306	160	160	160	160	160	320 160	
Maximum Size		2,000	8,984	8,774	2,400	3,023	1,760	2,560	1,441	2,720	2,560	
Std. Dev.		438	1,555	1,681	584	618	428	288	257	525	442	
Mean Size		732	696	1,209	713	947	632	747	643	847	799	
No. of Farms		42 46	30	23	23	29	32	20	34 31	61	28	of table
Delivery Point		Anerley 1962-63 1969-70	Matador 1962-63	1969-70	Ridpath 1962-63 1969-70	Thrasher 1962-63 1969-70	Gunnworth 1962-63	1969-70	Totnes 1962-63 1969-70	Beadle 1962-63 1969-70	Hamlets Leach Siding 1962-63 1969-70	See footnotes at end

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Delivery Point	No. of Farms	Mean Size	Std. Dev.	Maximum Size	Minimum Size	Median Size	Modal Size(s)	Modal Size Group(s)
					- acres	ı		
McMorran 1962-63 1969-70	48	715	370	1,920	315	640	320 640	241-400 561-720
Bratton 1962-63	27	662	338	1,280	157	640	320	241-400
1969-70	30	757	370	1,440	157	800	800	721-800
Glamis 1962-63	09	702	453	2,757	160	637	320	401-560
1969-70	34	902	482	2,307	155	637	160, 640	561-720
Tuberose 1962-63 1969-70	37 30	805	857	3,360	160	640 956	640, 800 960	561-720 881-1,040
Bickleigh 1962-63 1969-70	32	727	437	1,600	160	720	320 800	241-400 721-800
Snipe Lake 1962-63 1969-70	84 81	720	497	2,560	86	640	640 480	241-400 241-400
Greenan 1962-63 1969-70	19	820 932	386	1,600	160	096	640 960	561-720 881-1,040
Isham 1962-63 1969-70	62	689	454 453	2,184	160	640	320 320	241-400 241-400
McGee 1962-63 1969-70	33	541	253 634	1,120	160	480	480	401-560 721-880
See footnotes at end	of table							(continued)

TABLE 24. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (continued)

See footnotes at end of table

						- 9	4 -			
	Modal Size Group(s)		561-720 561-720 881-1,040	1,521-1,680	241-400 561-720	561-720	401-560	561-720	561-720	241-400 401-560 561-720 721-880
ontinued)	Modal Size(s)		640 640, 1,120		320 640	640 320	480	640 640	320, 640, 960 160	160, 320, 480
STUDY AREA, 1962-63 AND 1969-70 (continued)	Median Size	1 (5)	1,120		595 640	640	640	640	640 693	480
A, 1962-63 A	Minimum Size	acre	156		160	160	141	143	160	160
STUDY ARE	Maximum Size		2,170		3,200	2,240 5,120	2,650	4,006	1,993	2,240
FARMS IN THE	Std.		462		485	476	526 624	501	390	385
GRAIN FARM	Mean		900		679	775	753	728	694	591
ACREAGE OF	No. of Farms		55 45		20	74	47	76	57	65 48 8
TABLE 24. AVERAGE	Delivery Point		Sanctuary 1962-63 1969-70		Tyner 1962-63 1969-70	Richlea 1962-63 1969-70	Martime 1962-63 1969-70	Forgan 1962-63 1969-70	D'Arcy 1962-63 1969-70	<i>Villages</i> Bounty 1962-63 1969-70

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								Loren	
Delivery Point	No. of Farms	Mean Size	Std. Dev.	Maximum Size	Minimum Size	Median Size	Modal Size(s)	Modal Size Group(s)	
					- acres	ı			
Hughton 1962-63 1969-70	58	969	1,144	8,000	160	640 680	640 160, 640, 1,280	561-720 561-720	
Glidden 1962-63 1969-70	84	684 997	741	6,550	160	640 800	640 640	561-720 561-720	
Netherhill 1962-63 1969-70	59 55	893	442	2,080	140 159	800	640, 800, 960	561-720 881-1,040	
Madison 1962-63 1969-70	76	753	450	2,560	160	640 747	480 640	401-560	- 95
Fiske 1962-63 1969-70	75	843	466	2,238	160	800 948	640 320, 640	561-720	-
Macrorie 1962-63	52	639	420	1,920	154	592	320	241-400	
1969-70	44	838	563	2,400	154	640	320	241-400	
Plato 1962-63 1969-70	56 58	844	578	3,040	84 84	640 960	614 960	561-720 881-1,040	
White Bear 1962-63 1969-70	107	681	347	1,882	160	640 640	320 640	241-400	
Stewart Valley 1962-63	120	629	388	2,240	160	628	320	241-400	
1969-70	92	748	490	2,240	160	640	160	241-400	
See footnotes at end	of table							(continued)	

AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (continued)

TABLE 24.

AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (continued) TABLE 24.

1												i
Modal Size Group(s)		561-720	561-720 881-1,040	561-720 241-400	401-560	401-560 881-1,040		241-400	241-400 561-720	241-400	401-560	561-720
Modal Size(s)		640 800	640 960	640 320, 640, 1,280	640	096		320	320	320 320	320	640
Median Size	1	800	640	640 960	640	796		640	755	480	640	800
Minimum Size	- acres	160	160	140	54	54		106	140	160	160	160
Maximum Size		2,160	1,780	1,948	1,755	3,360		2,774	3,653	1,920	2,560	4,480
Std. Dev.		408	337	401	386	532		412	692	380	498	716
Mean Size		838	671	752 959	689	803		702	930	632	818	978
No. of Farms		72	62	95	76	87		66	85	190	71	73
Delivery Point		Lacadena 1962-63 1969-70	Sovereign 1962-63 1969-70	Wiseton 1962-63 1969-70	Brock 1962-63	1969-70	Towns	M11967-63	1969-70	Dinsmore 1962-63 1969-70	Elrose 1962-63	1969-70

TABLE 24. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (concluded)

111 584 93 699 112 829 125 831 154 711 196 811	584		Size	Size	Size(s)	Group(s)
111 584 93 699 112 829 125 831 154 711	584		- acres -			
93 699 112 829 125 831 154 711	669	1,760	36	621	320	241-400
112 829 125 831 154 711 196 811		1,920	160	640	640	561-720
2-63 112 829 9-70 125 831 2-63 154 711 9-70 196 811						
3 154 711 0 196 811 ey	829 831	8,000	12	640 640	320 320	241-400 241-400
L	711	2,880	49	640 640	640 320	561-720 241-400
830 904		2,560	160 155	640 781	640 320	561-720 241-400
Total Study Area 3,318 730 514 1969-70 2,895 850 622	730	8,984 9,108	12	640 780	640 320	561-720 561-720

Std. Dev. - Standard deviation.

Source: Delivery Permit Books, Canadian Wheat Board, Winnipeg.

TABLE 25. LAND TENURE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70

	Per Cen	t Owned	Per Cen	t Rented
Delivery Point	1962-63	1969-70	1962-63	1969-70
Too Small to Classify			_	_
Pym	53.0	-	47.0	_
Surbiton	50.2	_	49.8	_
Glen Payne	76.0	_	24.0	_
Saltburn	78.7	_	21.3	_
Lille	73.5	_	26.5	_
Chipperfield	79.2		20.8	
Verendrye	61.1	61.5	38.9	38.5
Gaines	63.6	45.5	36.4	54.5
Mondou	80.4	80.2	19.6	19.8
Inglenook Penkill	87.4	78.7	12.6	21.3
Sandgren	93.2	69.6	6.8	30.4
Witley	73.6	72.8	26.4	27.2
Fortune	69.0	68.2	31.0	31.8
Juniper	74.9	81.1	25.1	18.9
Tichfield	71.2	78.9	28.8	21.1
Anerley	85.3	71.6	14.7	28.4
Matador	74.5	84.8	25.5	15.2
Ridpath	66.8	82.8	33.2	17.2
Thrasher	58.8	49.7	41.2	50.3
Gunnworth	60.1	74.6	39.9	25.4
Totnes	73.0	69.9	27.0	30.1
Beadle	67.3	88.6	32.7	11.4
Hamlets				50.5
Leach Siding	68.5	46.5	31.5	53.5
McMorran	72.3	69.2	27.7	30.8
Bratton	58.4	70.0	41.6	30.0
Glamis	72.1	77.4	27.9	22.6
Tuberose	59.6	63.5	40.4	36.5 31.0
Bickleigh	65.1	69.0	34.9 31.0	24.8
Snipe Lake	69.0	76.2 78.2	44.1	21.8
Greenan	55.9	82.0	35.8	18.0
Isham	64.2 84.8	85.6	15.2	14.4
McGee	73.8	75.1	26.2	24.9
Sanctuary	70.8	74.5	29.2	25.5
Tyner	66.3	65.3	33.7	34.7
Richlea Wartime	73.5	77.8	26.5	22.2
Forgan	74.9	80.2	25.1	19.8
D'Arcy	75.1	88.4	24.9	11.6
D M Cy	, , , ,			

TABLE 25. LAND TENURE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1969-70 (concluded)

		it Owned	Per Cen	t Rented
Delivery Point	1962-63	1969-70	1962-63	1969-70
Villages				
Bounty	67.5	74.3	32.5	25.7
Hughton	77.4	77.1	22.6	22.9
Glidden	82.8	84.9	17.2	15.1
Netherhill	73.3	81.0	26.7	19.0
Madison	63.1	68.8	36.9	31.2
Fiske	76.6	79.7	23.4	20.3
Macrorie	65.2	68.0	34.8	32.0
Plato	71.1	71.6	28.9	29.4
White Bear	72.1	84.4	27.9	15.6
Stewart Valley Lacadena	69.9 80.1	77.1	30.1 19.9	22.9
Sovereign	53.3	78.0 63.4	46.7	36.6
Wiseton	74.0	76.7	26.0	23.3
Brock	74.3	82.4	25.7	17.6
DIOCK	71.0	02.1	20.7	17.0
Towns				
Milden	69.5	73.2	30.5	26.8
Dinsmore	73.2	82.3	26.8	17.7
Elrose	73.4	71.1	26.6	28.9
Kyle	74.4	74.4	15.6	15.6
Greater Towns				
Eston	69.4	73.6	30.6	26.4
Rosetown	64.0	74.9	36.0	25.1
Kindersley	75.5	77.1	24.5	22.9
Total Study Area	71.5	75.9	28.5	24.1

Source: Delivery Permit Books, Canadian Wheat Board, Winnipeg.



### PART III

### GRAIN MARKETING AND HANDLING CHARACTERISTICS

## Farm Operators' Choice of Delivery Point

In 1966 the Canada Department of Energy, Mines and Resources conducted a marketing survey of grain producers in the Prairie Provinces. Some of the information obtained from the mail questionnaires is summarized in Table 26. The number of returns was low. Only 35 out of a possible 55 delivery points returned a sufficient number of questionnaires to analyze; and of these only 9 returned more than half of their questionnaires. Average response for the 35 points shown was 29 per cent, representing 496 replies.

On the basis of returns received the most important factor governing a farmer's choice of delivery point was shortest hauling distance. In total, 83 per cent indicated shortest hauling distance as a reason for choosing their delivery point. The point with the lowest affirmative replies was Bounty (57 per cent).

"Best road access" and "preference for elevator company" were next in importance averaging 40 per cent and 36 per cent in the affirmative. "Good shopping facilities" and "banking, business, etc." averaged 13 and 8 per cent, respectively. The importance of these increased very substantially as size of community increased, obviously reflecting the existence of a greater variety of services available in larger centers.

FACTORS GOVERNING GRAIN FARM OPERATORS' CHOICE OF DELIVERY POINT, 1966 TABLE 26.

Per cent of Farm Operators Replying to Questionnaire		100 100 22 85 37 28 88 16	20 67 67 18 10 29 13
Other Reasons	tive -	0000000000000	0000004
Banking, Business, Etc.	s in affirma	00000000040000	0000
Good Shopping Facilities	total replie	0000000000000	0 0 0 3 3 2 4 4
Shortest Hauling Distance	- per cent of	100 100 100 100 100 100 100 96 96	83 62 90 100 100 80 74
Preference for Elevator Company		44 100 100 36 64 67 67 23 23 20 20	50 7 7 80 50 50 60 72 82
Best Road Access		<i>fy</i> 78 23 80 20 18 0 0 9 14 78 78 11 29 81 18 60 33	50 38 40 50 38 41 44
Delivery Point		Too Small to Classify Chipperfield Verendrye Gaines Mondou Inglenook Penkill Witley Fortune Juniper Anerley Matador Thrasher Gunnworth Totnes Beadle	Hamlets Leach Siding McMorran Bratton Bickleigh Snipe Lake Isham Wartime D'Arcy

TABLE 26. FACTORS GOVERNING GRAIN FARM OPERATORS' CHOICE OF DELIVERY POINT, 1966

Delivery Point	Best Road Access	Preference for Elevator Company	Shortest Hauling Distance	Good Shopping Facilities	Banking, Business, Etc.	Other Reasons	Per cent of Farm Operators Replying to Questionnaire
			- per cent of total	f total replies	s in affirmative	ative -	
Villages							
Bounty	36	71	22	7	0	0	24
Glidden	19	20	69	9	19	0	23
Netherhill	22	33	89	=	0	0	17
Fiske	37	51	73	17	0	0	56
Stewart Valley	52	28	84	40	0	0	24
Lacadena	0	0	80	47	93	0	20
Sovereign	73	29	73	13	7	0	24
Wiseton	65	59	94	71	65	0	21
Brock	20	20	80	13	13	0	16
Towns							
Milden	77	15	58	31	69	0	31
Elrose	42	25	58	16	17	0	17
Kyle	27	46	91	6	0	0	10
Study Area Total	40	36	83	13	$\infty$	0	29

Prairie Farm Marketing Survey, Geographical Branch, Canada Department of Energy, Mines and Resources, 1966. (Unpublished). Source:

## Delivery Permit Books Issued

The number of grain delivery permits issued increased by 479 or 14.4 per cent between 1962-63 and 1970-71 as shown in Table 27. The study area totals decreased because of fewer permits issued at nearly all delivery points, reflecting a decline in the number of grain farms in the area. Proportionally, small communities lost more than large communities. The number of permits at eight points increased; namely Beadle, Bratton, Wartime, Hughton, Plato and the three greater towns. Rosetown had the largest increase of 65 permits or 42 per cent.

TABLE 27. DELIVERY PERMIT BOOKS ISSUED BY DELIVERY POINT, 1962-63 TO 1970-71

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71 <sup>a</sup>
Pym Surbiton Glen Payne Saltburn Lille Chipperfield Verendrye Gaines	Storage 10 5 19 5 20 18 19	only Storage Closed 9 7 17 17	only Closed Storage 14 17	only 11 12 17	10 13 15	10 8 16	10 8 15	Storage Storage 12	only Storage
Mondou Inglenook Penkill	19 21 27	17 20 26	15 20 25	12 20 22	12 17 20	11 16 19	8 16 20	11 16 13	only 10 14 Storage
Sandgren Witley Fortune Juniper Tichfield Anerley Matador Ridpath Thrasher Gunnworth Totnes Beadle	24 26 35 34 48 42 30 23 29 32 34 61	24 23 37 31 44 49 29 23 35 29 33 62	22 24 36 32 41 49 27 19 33 26 32	19 20 32 31 39 49 25 9 33 25 31 61	20 17 29 30 38 48 23 8 25 27 30 58	19 18 26 32 37 47 23 8 24 25 31 60	21 14 26 33 34 45 23 6 24 24 24 30 65	18 13 22 31 30 46 23 6 25 20 31 65	only 13 10 17 30 30 32 22 5 22 22 22 22
Hamlets Leach Siding McMorran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan	28 48 27 60 37 32 84	32 43 30 60 36 33 80	32 43 30 57 36 35 83	30 43 30 52 36 34 82 16	29 47 27 44 34 33 81	29 46 28 46 34 32 81	30 41 29 45 31 30 83	32 33 30 34 30 22 81 18	28 35 31 33 31 21 79 Storage
Isham McGee Sanctuary Tyner Richlea Wartime Forgan D'Arcy	62 33 55 58 74 47 76 57	61 28 55 56 72 46 74 54	59 29 55 55 69 43 75 55	58 28 54 59 74 40 72 53	56 43 51 62 72 39 67 51	60 22 48 63 69 38 66 48	62 21 50 64 68 38 66 51	63 15 45 59 59 43 61 52	only 61 13 45 54 66 50 62 52
Villages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valle Lacadena Sovereign Wiseton Brock	65 58 84 59 76 75 52 56 107 120 72 62 95	64 57 76 58 79 76 48 54 112 112 80 63 88 91	61 53 68 56 77 74 52 56 106 115 84 65 85	58 54 71 54 77 73 54 56 104 106 76 62 82 91	55 52 66 54 75 69 52 53 106 118 71 61 78 84	53 49 67 55 77 72 49 49 109 104 70 57 78 69	50 52 62 53 73 69 44 48 106 105 68 59 74	48 63 61 55 68 79 44 58 105 95 66 57 73 87	49 62 58 55 68 74 39 67 101 92 63 61 74 88

TABLE 27. DELIVERY PERMIT BOOKS ISSUED BY DELIVERY POINT, 1962-63 TO 1970-71 (concluded)

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71 <sup>a</sup>
Towns Milden Dinsmore Elrose Kyle	99	91	85	85	85	83	87	82	86
	190	180	174	174	168	166	165	158	167
	71	63	69	70	70	68	70	73	71
	111	108	104	106	102	97	95	93	91
Greater Towns Eston Rosetown Kindersley Study Area Tota	112	113	111	104	105	108	112	125	128
	154	164	165	179	191	201	202	196	219
	125	130	128	126	132	136	135	150	152
	1 3,318	3,234	3,163	3,091	3,040	2,974	2,957	2,895	2,839

<sup>&</sup>lt;sup>a</sup>Figures for 1970-71 represent approximately 99 per cent of permits issued.

Source: Delivery Permit Books, Canadian Wheat Board, Winnipeg.

## Canadian Wheat Board Initial Payments

Under the Canadian Wheat Board marketing system producers receive an initial payment upon delivery of their grain to the country elevator. Tables 28, 29 and 30 show net initial payments based on a set value at the Lakehead, less freight costs from the delivery point and less country elevator handling charges. The level of initial payment is established each year by the Federal Government as an order-in-council and is not necessarily the same from year to year. Initial payments in 1969-70 (Table 29), for example, were substantially lower than in 1968-69 (Table 28). Of the grains shown, only barley street prices differed in 1970-71 (Table 30) from street prices in the previous year, 1969-70.

Freight rate zones have been established which follow a general north-south orientation and increase by one-cent-per-hundredweight steps as one moves westward from the Lakehead. In the Eston-Elrose study area Stewart Valley and all delivery points east and north of the line drawn just east of Brock, McMorran and Eston, and just north of Witley and Sanctuary, are in a 23-cent freight rate zone. All remaining points are in a 24-cent freight zone.

Since net initial payments are slightly higher in the 23-cent freight rate zone, it follows that a farmer located on or near the boundary between the two freight zones may well take this into account when choosing his delivery point. For example, someone delivering to D'Arcy receives \$1.26 1/4 per bushel (No. 2 wheat, 1969-70) which is 1/2 cent more than the \$1.25 3/4 per bushel he would receive at neighboring Brock. To the extent that this has a bearing on each farmer's choice of delivery point, to that extent also will the size and shape of delivery point hinterlands be affected.

<sup>&</sup>lt;sup>1</sup>For a more detailed description of how the initial payment is arrived at see J.W. Channon, "How Canadian Wheat is Handled," <u>Canadian Journal of Agricultural Economics</u>, Workshop Proceedings, 1969, p. 88.

TABLE 28. CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1968-69

	No. 1 Feed		.80 3/8 .80 3/8	80 3/8 80 3/8 80 3/8 80 3/8 80 3/8 79 7/8 80 3/8 80 3/8	.80 3/8 .79 7/8 .80 3/8 .80 3/8 .79 7/8 .79 7/8 .79 7/8 .80 3/8 .80 3/8 .80 3/8 .80 3/8
Barley	No. 3 C.W. 6 Row		.89 3/8	89 3/8 88 3/8 88 3/8 88 3/8 88 3/8 88 3/8 89 3/8 89 3/8 89 3/8 89 3/8 89 3/8 89 3/8 89 3/8 89 3/8	88.8 88.8 88.8 88.8 88.8 88.8 88.8 88.
S	No. 1 Feed		.47 7/8	447 7/8 447 7/8	.47 7/8 .47 7/8 .47 7/8 .47 7/8 .47 7/8 .47 7/8 .47 7/8 .47 1/2 .47 1/2 .47 1/2 .47 1/2 .47 1/2 .47 1/8 .47 1/8
Oat	No. 2 C.W.	1 [6]	.52 7/8	52 7/8 552 7/8 552 7/8 552 7/8 552 7/8 552 7/8 552 7/8 552 7/8 552 7/8 552 7/8	.52 7/8 .52 1/2 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8 .52 1/8
	No. 4 Northern and No. 4 C.W.A.D.	- dollars per bushel	1.35 1/2	1.35 1/2 1.35 1/2	1.35 1/2 1.35 1/2
Wheat	No. 2 Northern and No. 2 C.W.A.D.		1.46 1/2	1.46 1/2 1.46 1/2	1.46 1/2 1.46 1/2
	No. 1 Northern and No. 1 C.W.A.D.		1.50 1/2	1.50 1/2 1.50 1/2	1.50 1/2 1.50 1/2
	Grain Freight Rates to Lakehead <sup>2</sup>	- cents/cwt	23	Closed Closed 2333333333333333333333333333333333333	22222222222222222222222222222222222222
	to Doint		Too Small to Classify Pym <sup>b</sup> Surbiton <sup>b</sup>	Glen Payne Saltburn Lilleb Chipperfield Verendrye Gaines Mondou Inglenook Penkill Sandgren Witley Fortune Juniper Tichfield Anerley Matador Ridpath Thrasher Gunnworth Totnes Beadle	Leach Siding Leach Siding McMorran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime Forgan

TABLE 28. CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1968-69 (concluded)

			Wheat		Oats	S	Barley	
Delivery Point	Grain Freight Rates to Lakehead <sup>a</sup>	No. 1 Northern and No. 1 C.W.A.D.	No. 2 Northern and No. 2 C.W.A.D.	No. 4 Northern and No. 4 C.W.A.D.	No. 2 C.W.	No. 1 Feed	No. 3 C.W. 6 Row	No. 1 Feed
	- cents/cwt			- dollars per bushe	e] -			
Villages								
Bounty	23	1.50 1/2	1.46 1/2	1.35 1/2	.52 7/8	.47 7/8	.89 3/8	.80 3/8
Hughton	23		-					
Glidden	24		1.46					
Netherhill	24	1.50	1.46	1.35				
Madison	24	1.50	1.46	1,35				
Fiske	23							
Macrorie	23	1.50 1/2	1.46 1/2	1.35 1/2				
Plato	23							
White Bear	24							
Stewart Valley	23			1.35 1/2				
Lacadena	24							
Sovereign	23	1.50 1/2	1.46 1/2	1.35 1/2				
Wiseton	23							
Brock	24							
Towns								
Milden	23							
Dinsmore	23	1.50 1/2	1.46 1/2	1.35 1/2	.52 7/8	.47 7/8	.89 3/8	.80 3/8
Elrose	533							
N = 0	<del>\$</del> 7	00.1	0 + . –	cc				
Greater Towns								
Eston	24							
Kinderelev	233	1.50 1/2	1.46 1/2	1.35 1/2	.52 //8	4/ //8	8,2 88	.80 3/8
Sale land	-	-		0000				

 $^{\rm 4}{\rm Flaxseed}$  and Rapeseed 1 1/2 cents per hundredweight higher.  $^{\rm b}{\rm Storage}$  only.

Source: Canadian Wheat Board, Winnipeg.

TABLE 29. CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1969-70

			Wheat		0a	Oats	Barl	ey
Delivery Point	Grain Freight Rates to Lakehead <sup>a</sup>	No. 1 Northern and No. 1 C.W.A.D.	No. 2 Northern and No. 2 C.W.A.D.	No. 4 Northern and No. 4 C.W.A.D.	No. 2 C.W.	No. 1 Feed	No. 3 C.W. 6 Row	No. 1 Feed
	- cents/cwt		- dollar	lars per bushel -				
Too Small to Classify $\Pr_{\text{Dym}^b} \\ \text{Surbiton}^b \\ \text{Glen Payne}$	23 23 Closed	1.30 1/4	1.26 1/4	1.13 1/4	.47 5/8	.42 5/8	.74 1/8	.64 1/8
Saltburn Lille <sup>b</sup> Chipperfield <sup>b</sup>	Closed 23 23 23	1.30 1/4	1.26 1/4	1.13 1/4	.47 5/8 .47 5/8	.42 5/8	.74 1/8 .74 1/8 .73 5/8	.64 1/8 .64 1/8 .63 5/8
Verendrye Gaines Mondou	7	300.30	3	3 ~ ~	2 2	22:		
Inglenook Penkill	24	.29	3	3 3 3	55	52		3/5
Sandgren Witley	24 24		300	200	5	5		- 25 6
Fortune Juniper Tichfield	7 7 7 °C	2000		333	22	22		
Anerley Matador	233	.30	13	23 -	5-1	2		- 3
Ridpath Thrasher	23 23 33 33 33			2 C C	2 20	5 50 50		
Gunnwortn Totnes Beadle	23 24 33		3-5	3/2	15	75		5
Hamlets		,	,	-	1	1	-	_
Leach Siding McMorran	24 3	1.30 1/4	1.25 3/4	1.12 3/4	4/ 1/4.	.42 1/4 .42 1/4	73 5/8	63 5/8
Bratton Glamis	W W &	.30 1/2	2-1-	2 <del>-</del> 2 - 2	250	125	5/-/5	5/2
Tuberose Bickleigh	23 4	.30 1/	2 – 5	3-6	- 22 -	25.	5/2	5
Snipe Lake Greenan	23 2	5-5	5 – 6	3 - 6	12	. 25 -	5	5
I sham McGee	23 4	5-6	2 – 5	3/2/6	12	12.	5	5
Sanctuary	24	9 6	3 6	23/	=	=	2	5
Richlea	23			3 3 7	2 2	2		
wartime Forgan	233			3 - 2	7 2	2		
D'Arcy	53	-	_	-	5	5	-	
See footnotes at end of table	of table						3)	(continued)

See footnotes at end of table

CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1969-70 (concluded) TABLE 29.

					09	Oats	Barl	ey
Delivery Point	Grain Freight Rates to Lakehead <sup>a</sup>	No. 1 Northern and No. 1 C.W.A.D.	No. 2 Northern and No. 2 C.W.A.D.	No. 4 Northern and No. 4 C.W.A.D.	No. 2 C.W.	No. 1 Feed	No. 3 C.W. 6 Row	No. 1 Feed
	- cents/cwt		- dol1	ars per bushel -				
Villages	23	00		~				
Hook+on	223	2000		2 0				
nagricon	82	000		20				
No+bowhill	† C	200		10				
Madison	24	1.29 3/4	1.25 3/4	1.12 3/4	47 1/4	.42 1/4	.73 5/8	.63 5/8
Fiske	23	.30		0				
Macrorie	23			~				
Plato	23			co				
White Bear	24			ς,				
Stewart Valley	23			m				
Lacadena	24			CJ.				
Sovereign	23			co				
Wiseton	23			~				
Brock	24			N				
Towns	1							
Milden	233	30						
Dinsmore	23	1.30 1/4	1.26 1/4	1.13 1/4	.4/ 5/8	.42 5/8	8/1 4/.	8/1/8
Elrose	233	30						
Kyle	24	. 29						
Greater Towns								
Eston	24	.29						
Rosetown	23	1.30 1/4	1.26 1/4	1.13 1/4	.47 5/8	.42 5/8	.74 1/8	.64 1/8
Kindersley	24	. 29						

 $^{\rm d}{\rm Flaxseed}$  and Rapeseed 1 1/2 cents per hundredweight higher.  $^{b}{\rm Storage}$  only.

Source: Canadian Wheat Board, Winnipeg.

See footnotes at end of table

Delivery Point R		P				0000	100	(2)
		No. 1 Northern	No. 2 Northern	No. 4 Northern	2		0	- C
	Grain Freight Rates to Lakehead <sup>a</sup>	and No. 1 C.W.A.D.	No. 2 C.W.A.D.	No. 4 C.W.A.D.	NO. Z C.W.	Feed	6 Row	Feed F
	- cents/cwt		llob -	llars per bushel -				
Too Small to Classify					L	L		
Pymb	23	1.30 1/4	1.26 1/4	1.13.1/4	47 5/8	42 5/8	.84 1/8	.74 1/8
Surbiton Glen Payne	Closed	2		)	)	-		
Saltburn	Closed							,
Lilleb	23	1.30 1/4	1.26 1/4	1.13 1/4	.47 5/8	.42 5/8	.84 1/8	.74 1/8
Chipperfield $^b$	23			m			- 1	- 1
Verendrye	24	1.29 3/4		0			3	3
Gaines <sup>b</sup>	23			m 1				
Mondou	23			m 1				- 1
Inglenook	24			N (			0,	0 -
Penkill <sup>b</sup>	23			3			- 1	_ [
Sandgren	24			2			5	Ç L
Witlev	24			N			5	2
Fortune	23			$\sim$			-	- ,
Juniper	23			$\sim$				- ,
Tichfield	23			$\sim$			- ;	- ,
Anerlev	23			m			_	_ ;
Matador	24			N			2	5
Ridbath	23			$^{\circ}$			-	,
Thrasher	23			$\sim$			-	_ ,
Gunnworth	23			m				
Totnes	23			m (				
Beadle	24			N			o .	o .
Hamlets								·
Leach Siding	23	-		1.13 1/4	.47 5/8	.42 5/8	.84 1/8	3/4 1/8
MoMorran	24	3		N				5,
Bratton	23	-	26	0				
Glamis	23	_		m				- 1
Tuberose	24	3		N (				2 ,
Bickleigh	23	_		n (				- 2
Snipe Lake	24	1.29 3/4	1.25 3/4					5 -
Greenan	23	_		200				- 13
Isham	24	m .		V C				5 -
McGee	23	- 7		2				- 13
Sanctuary	24	2		V C				2
Tyner	24	2		V C				5 -
Richlea	23	-		7)				
Wartime	23	-		n (				
Fordan	23	$\overline{}$		20				0/1 +/.
D'Arcv	23	_		m				-

CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1970-71

TABLE 30.

TABLE 30. CANADIAN WHEAT BOARD NET INITIAL PAYMENTS TO PRODUCERS ("STREET PRICES") BY DELIVERY POINT, CROP YEAR 1970-71 (concluded)

			Wheat		000	Oats	Barl	ey
Delivery Point	Grain Freight Rates to Lakehead <sup>a</sup>	No. 1 Northern and No. 1 C.W.A.D.	No. 2 Northern and No. 2 C.W.A.D.	No. 4 Northern and No. 4 C.W.A.D.	No. 2 C.W.	No. 1 Feed	No. 3 C.W. 6 Row	No. 1 Feed
	- cents/cwt		op :	dollars per bushel -				
Bounty Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiseton Brock	222222222222222222222222222222222222222	1.30 1.29 1.29 1.29 1.29 1.30 1.30 1.30 1.4 1.30 1.4 1.30 1.4 1.29 1.4	1.26 1/4 1.25 3/4 1.25 3/4 1.25 3/4 1.26 1/4 1.26 1/4 1.26 1/4 1.25 3/4 1.25 3/4	1.13 1.12 1.12 1.12 1.13 1.44 1.13 1.44 1.13 1.44 1.13 1.44 1.13 1.44 1.13 1.44	47 5/8 47 1/4 47 1/4 47 1/4 47 1/4 47 5/8 47 1/4 47 1/4 47 1/4 47 1/4 47 1/4	42 5/8 42 5/8 42 5/8 42 1/4 42 5/8 42 5/8 42 5/8 42 5/8 42 5/8 42 5/8 42 5/8 42 5/8 42 5/8	883.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578 17.88.83.578	74 1/8 73 5/8 73 5/8 73 5/8 74 1/8 74 1/8 74 1/8 74 1/8 74 1/8 74 1/8
Towns Milden Dinsmore Elrose Kyle	23 23 24	1.30 1/4 1.30 1/4 1.30 1/4 1.29 3/4	1.26 1/4 1.26 1/4 1.26 1/4 1.25 3/4	1.13 1/4 1.13 1/4 1.13 1/4 1.12 3/4	.47 5/8 .47 5/8 .47 5/8 .47 1/4	.42 5/8 .42 5/8 .42 5/8 .42 1/4	.84 1/8 .84 1/8 .84 1/8 .83 5/8	.74 1/8 .74 1/8 .74 1/8 .73 5/8
Greater Towns Eston Rosetown Kindersley	24 23 24	1.29 3/4 1.30 1/4 1.29 3/4	1.25 3/4 1.26 1/4 1.25 3/4	1.12 3/4 1.13 1/4 1.12 3/4	.47 1/4 .47 5/8 .47 1/4	.42 1/4 .42 5/8 .42 1/4	.83 5/8 .84 1/8 .83 5/8	.73 5/8 .74 1/8 .73 5/8

 $^{\rm a}{\rm Flaxseed}$  and Rapeseed 1 1/2 cents per hundredweight higher.  $^b{\rm Storage}$  only.

Source: Canadian Wheat Board, Winnipeg.

## Number and Capacity of Country Elevators

The number and storage capacity of grain elevators at any particular delivery point is a measure of the importance of that point as a grain collection and distribution center.  $^{1}$  Table 31 contains this information, again for the crop years 1962-63 and 1969-70. The number of grain elevator companies represented at each point in 1962 and 1969 is also shown.

All but eight points had the same number of elevators in 1969-70 as in 1962-63. Six delivery points each had one less elevator in 1969-70 than in 1962-63 while the two largest centers in the area together had five additional elevators, for an overall net decrease of one elevator in the study area. However, numerous points, other than those too small to classify, increased their storage capacities with Rosetown showing the largest increase of 688 thousand bushels, which brings its capacity to more than double its 1962-63 capacity of 509 thousand bushels. Total storage capacity in the study area increased by 1.4 million bushels or 11.0 per cent.

Examination of the number of grain companies present at each delivery point reveals the fact that where two or more elevators exist, often two or more companies are present also. This is an indication of the degree of competition among elevator companies. It is also noteworthy that between 1962 and 1969 the number of companies present decreased by one in each of 17 delivery points. Rosetown was the only point where an additional grain company moved in.

 $<sup>^{1}</sup>$ Bushel receipts should also be taken into account. See Table 32.

TABLE 31. NUMBER AND CAPACITY OF LICENSED COUNTRY ELEVATORS BY DELIVERY POINT, 1962-63 AND 1969-70

	Numb	er of			Number o Compa	
Delivery Point	Elev	ators 1969-70	Storage 1962-63	Capacity 1969-70	Aug. 1, 1962	
	- num	ber -	- '000 b	ushels -	- num	ber -
Too Small to Classif						
Pym	ηa	1ª	48	28	1	1
Surbiton	1	1a	39	39	1	1
Glen Payne	]	Closed	52	-		-
Saltburn	į	Closed l <sup>a</sup>	28	-	1	1
Lille	1	1ª	28 61	28 61	1	1
Chipperfield Verendrye	1	la Ja	50	50	1	1
Gaines	2	2	100	100	2	i
Mondou	2	2	134	108	2	i
Inglenook	1	ī	45	45	ī	i
Penkill	i	i	72	72	i	1
Sandgren	1	7	52	52	1	1
Witley	2	2	142	142	2	1
Fortune	2	2	166	166	2	]
Juniper	2	2	51	51	1	]
Tichfield	3		79	79	2	
Anerley	3	3	94	94	2 1	1
Matador	2	2 2	103 68	103 68	2	1
Ridpath Thrasher	2	2	167	167	2	2 2 2 2 2
Gunnworth	2	2	172	.172	2	2
Totnes	2	2	164	164	2	2
Beadle	3	3	223	223	3	2
Hamlets	2	2	92	92	2	2
Leach Siding McMorran	2	2	158	144	2	2
Bratton	1	1	50	50	1	2 2 1
Glamis	3	3	265	265	2	2
Tuberose		3	192	192		ī
Bickleigh	3 2	2	100	100	2 2 4	1
Snipe Lake	4	4	368	368	4	3
Greenan	1	1	25	25	1	3 1 3
Isham	3	3	279	274	3	3
McGee	3 2 3 3	3 2 3	72.	72	1	1
Sanctuary	3	3	262	262	2 3 3	2
Tyner		3	247	247	3	3
Richlea	5 3	4	470	474	2	2 3 3 2
Wartime	3	3	194	220	2	2

TABLE 31. NUMBER AND CAPACITY OF LICENSED COUNTRY ELEVATORS BY DELIVERY POINT, 1962-63 AND 1969-70 (concluded)

	Numbe				Number c	nies
Delivery Point	Eleva 1962-63	1969-70	1962-63	1969-70	1962	Aug. 1,
	- numb	er -	- '000	bushels -	- nun	nber -
Forgan D'Arcy	4 3	4 3	468 130	526 137	3 2	2 2
Villages						
Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiseton Brock	3 5 4 3 5 2 2 3 3 4 3 5 6 3	3 5 4 3 5 2 2 3 3 4 3 4 5 3	172 438 342 285 502 241 67 163 283 203 212 342 365 249	186 429 429 285 577 241 67 226 294 203 220 354 363 330	2 4 3 3 4 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3	2 3 3 3 2 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3
Towns Milden Dinsmore Elrose Kyle	5 6 4 4	5 5 4 4	422 511 371 350	472 584 392 345	3 4 4 3	3 3 3 3
Greater Towns Eston Rosetown Kindersley	5 5 4	5 8 6	641 509 685	641 1,197 981	4 3 4	4 4 3
Study Area Total	167	166	12,863	14,276	7 <sup>b</sup>	$5^b$

<sup>&</sup>lt;sup>a</sup>Elevator used for storage only.

<sup>&</sup>lt;sup>b</sup>Grain companies represented are:

Saskatchewan Wheat Pool

United Grain Growers Ltd.

Federal Grain Ltd.

National Grain Co. Ltd.

Pioneer Grain Co. Ltd.

Searle Grain Co. Ltd. (Not present in 1969-70)

McCabe Grain Co. Ltd. (Not present in 1969-70)

Source: Canadian Grain Commission, Winnipeg.

## Receipts of Grain at Country Elevators

Annual receipts of grain at a particular delivery point is another measure of its relative importance as a grain collection and distribution center. Receipts for crop years 1962-63 through to 1969-70 and a ten-year average, 1960-61 to 1969-70, are presented in Table 32 for each delivery point in the study area.

Of all points still in operation as of 1969-70, ten-year average receipts range from 85 thousand bushels at Ridpath to 1,111 thousand bushels at Rosetown. Note that by rank Ridpath is too small to classify whereas Rosetown in a greater town. The observation that receipts increase as size of community increases can be further illustrated by listing the average of the ten-year averages for each community class size as follows: too small to classify (i.e. of those still open) 180; hamlets 310; villages 447; towns 641: and greater towns 995 thousand bushels.

Receipts vary considerably from year to year reflecting such things as crop yields and grain marketings. Total receipts in the study area ranged from a low of about 16.8 million bushels in 1968-69 to a high of 28.7 million bushels in 1966-67.

TABLE 32. RECEIPTS OF GRAIN AT LICENSED COUNTRY ELEVATORS BY DELIVERY POINT, 1962-63 TO 1969-70 AND TEN-YEAR AVERAGE

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69ª	1969-70ª	to 1969-70
				ı	'000 bushels	ı			
								ı	1
	1 7	1	1	8	l	8 1	1 1	3 8	30
	4/	ŧ	ı	1	1	1	1 !		10
	4-	1 (	ı	ı	ı	ı	1		34
	_ 5	40	ı	ı	ı	ı			5.5
	<u> </u>	44	1 (	1 0	1 1 1	I C	- 1	1	73
	96	102	59	200	//	000	4 C	1	07
	[3]	144	121	χς ·	06,	3 2 2	27.	1 0	10 L
	117	121	101	143	185	105	101	200	001
	114	130	70	101	145	- G I	0/0	80	601
	148	150	125	130	151	72	82	96	128
	174	178	142	161	197	105	86	56	145
	165	169	148	148	195	115	86	121	140
	178	199	145	157	170	84	29	87	143
	225	262	500	181	275	167	150	131	201
	165	200	136	117	178	101	103	115	147
	000	226	001	174	196	128	113	123	161
	000	267	280	311	407	257	262	285	279
	502	700	202	240	341	211	182	213	231
	301	777	70	73	74	41	40	38	85
	000	741	981	231	301	173	154	177	226
	202	220	901	107	100	130	120	124	136
		181	000	0 + 0	0 0 0	000	071	177	203
	201	230	208	214	8/2	101	248	4/1	202
	416	27.0	390	462	595	350	413	583	415
	213	302	224	266	356	210	206	237	237
	330	.416	341	407	461	241	195	238	314
	000	200	165	163	500	129	114	148	143
	330	484	340	392	414	247	226	228	346
	200	193	172	205	369	248	222	202	215
	201	254	201	225	278	168	153	134	206
	5/1	647	516	647	783	466	444	611	579
		113	000	103	144	805	87	102	88
	0000	001	311	416	521	334	322	412	369
	000	400	106	130	162	106	87	82	118
	104	- 0 - 0	070	000	20-	70V	3/11	451	373
	587	3/5	0/7	704	0 0	427	252	105	3/8
	327	324	526	414	200	400	000	100	2 6
	611	681	594	644	807	456	4/5	/64	228
	248	342	261	307	464	276	297	426	299
	394	438	367	483	571	408	380	424	433
	- 000	300	318	320	444	269	249	233	298
		- 17				177	71.7		0 0 0

See footnotes at end of table

TABLE 32. RECEIPTS OF GRAIN AT LICENSED COUNTRY ELEVATORS BY DELIVERY POINT, 1962-63 TO 1969-70 AND TEN-YEAR AVERAGE (concluded)

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69 <sup>a</sup>	1969-70 <sup>a</sup>	len-Year Average 1960-61 to 1969-70
				1	'000 bushels				
Villages									
Bounty	235	334	243	289	371	225	195	215	260
Hughton	347	502	320	494	610	391	372	613	423
Glidden	512	550	439	474	692	416	413	482	471
Netherhill	454	561	449	501	637	372	330	498	456
Madison	907	721	296	782	833	504	460	591	654
Fiske	369	526	404	482	621	378	349	463	408
Macrorie	175	310	199	211	291	183	182	163	211
Plato	395	441	230	422	531	313	309	409	384
White Bear	533	578	410	682	941	622	585	290	601
Stewart Valley	451	622	436	222	763	480	380	447	504
Lacadena	274	346	231	483	625	435	382	379	387
Sovereign	476	206	349	200	919	361	370	468	458
Wiseton	474	627	396	578	802	476	515	570	526
Brock	526	859	525	614	712	416	416	626	519
E									
LOMUS							1		
Milden	605	664	470	999	835	519	543	676	009
Ulnsmore	2/8	711,1	307	248	1,19/	40,	/7/	140	000
Elrose	416	184	402	278	5/7	200	404	000	491
e e	200	033	110	67/	426	040	100	000	750
Greater Towns									
Eston	925	897	741	927	1,149	743	668	975	819
Rosetown	006	1,298	1,019	1,271	1,831	1,130	1,209	1,466	1,111
Kindersley	1,099	1,118	977	1,149	1,659	926	940.	1,203	1,055
Study Area Total	19,473	23,239	17,398	21,858	28,719	17,568	16,812	20,520	19,925

<sup>a</sup>Rapeseed is included in 1968-69 and 1969-70 but excluded from receipts in all previous years.

Source: Canadian Grain Commission, Winnipeg.

## Canadian Wheat Board Specified Acreage

Prior to the beginning of the 1970-71 crop year the basis for determining each producer's general grain delivery quota was the so-called "specified acreage." This referred to farm land devoted to cereal crops, summerfallow and cultivated forage crops. Excluded were oilseeds, other miscellaneous crops, native pasture and unimproved farm land. Oilseeds had their own quotas based on declared seeded acreage.

The number of specified acres tributary to a delivery point is an indicator of the amount of grain producing land available and an indicator of the demand for grain handling and storage facilities at that point. Table 33 shows the specified acreage for each delivery point for the period 1962-63 to 1969-70. In 1969-70 about 2.1 million acres, out of the total farm acreage of about 2.5 million (Table 19), made up the specified portion. Therefore, a one bushel general quota in the study area would bring forth about 2.1 million bushels of grain.

Total specified acreage over the period increased 18.3 per cent. Only four hamlets and two villages experienced a decline in specified acreage. Of those points too small to classify, nine declined in specified acreage while seven points increased. Leach Siding showed the largest increase (73.2 per cent) while Glamis had the largest decline (43.4 per cent). Several points too small to classify experienced rather large gains, i.e., Anerley 61.0 per cent, Sandgren 30.7 per cent, Matador 25.8 per cent and Beadle 24.6 per cent. The largest absolute increase occurred at Rosetown which increased in excess of 45 thousand acres, while the largest absolute decrease occurred at Glamis which declined by over 14 thousand acres.

Table 34 simply provides some added detail with respect to the make up of specified acreage. For each delivery point, both the number of acres and the per cent of total specified acres devoted to Canadian Wheat Board grains are shown. Just as the land use pattern referred to earlier in Tables 18 and 19, the pattern with respect to Wheat Board grains is fairly uniform throughout. In 1962-63 durum was not included as a Wheat Board grain, thus, the percentage is somewhat lower than in the rest of the period. Roughly 50 per cent of specified acreage was seeded to wheat, durum, oats and barley. The study area total decreased slightly from 53.7 per cent in 1963-64 to 50.8 per cent in 1969-70.

TABLE 33. CANADIAN WHEAT BOARD SPECIFIED ACREAGE FOR DELIVERY QUOTA PURPOSES BY DELIVERY POINT, 1962-63 TO 1969-70

	1962-634	1963-64	1964-65	1965-66	1909-91	1907-08	1908-09	07-6061	07-6061 00
					- acres -				
Too Small to Classify									
Pym	Storage only		ı	f	ı	ı	1	1	ı
Surbiton	8,349	Storage only	ı	ı	ı	ı	ı	1	1
Glen Payne	2,393	Closed	1	ı	1	1	ı	1	1
Saltburn	6,727	290,9	Closed	1	ı	ı		1	
1116	3,010		Storage only	ı	ı	I	ι		
Chinnerfield	10,204	11,064	بص	6,774	6,524	6,599	6,304	Storage only	•
Verendrive	0 065	9 540	9,482	9,260	7,764	4,749	4 ,733	Storage only	•
verendrye	500,6	0+0,6	30466	0000	10,00	12 803	10 233	0 138	-19 6
gaines	11,301	1/4/1	086,21	077,71	12,449	200,21	10,01	30,00	4 2.6
Mondou	168,11	12,825	13,250	740,21	74/,71	16,031	10,01	000,21	0.1
Inglenook	12,062	12,730	12,875	11,899	10,595	10,145	10,542	10,234	7.61-
Penkill	13,435	15,628	15,918	14,397	14,012	14,424	14,712	8,881	-33.9
Sandaren	11,130	13,303	12,754	12,935	13,609	13,899	14,756	14,542	+30.7
10 TO	10,602	10 3/15	12 544	14 032	11 935	11,168	6,859	8,390	-20.9
wirley Treatment	0,000	000000	01 500	20,100	20,560	20,656	19,563	14,289	-34.7
Fortune	000,17	070,77	770,17	7 1 1 7 1	600,02	15,030	16,700	10 426	412.2
Juniper	16,420	16,9/9	1/,4/6	15,116	15,034	12,01/	10,700	10,420	7.71
Tichfield	23,318	23,675	22,322	23,129	22,296	22,380	20,025	18,481	1.02-
Anerlev	21,041	33,560	34,293	33,599	31,616	33,120	34,077	33,872	+61.0
Matador	18,527	24,541	24,830	23,327	23,319	23,853	23,863	23,308	+25.8
Ridpath	12,181	14,073	12,341	7,341	5,681	5,713	5,478	5,253	-56.9
Thrasher	23,607	29,717	27,377	27,621	24,127	23,683	20,738	20,146	-14.7
Gunnworth	15,283	16,058	15,269	16,057	16,650	16,952	15,287	14,222	6.9 -
Totnes	17,757	20,136	18,098	21,764	21,873	22,332	21,432	20,001	+12.6
Beadle	40,195	45,793	45,118	43,036	43,188	46,239	52,429	50,073	+24.6
Hamlets									
part Cidina	17 326	24 097	24.315	25.491	25,999	25.979	27.272	30,013	+73.2
Leach Staing	070,71	00,170	20 105	20,607	22 280	32 786	26 543	23 138	-14.2
McMorran	20,300	29,113	20,163	700,00	20,000	10 167	17,617	10 408	+30 3
Bratton	7/9,41	19,004	20,000	066,71	00000	20,107	27,047	10,468	-43.4
Glamis	34,36/	37,509	38,514	50,00	48,084	30,722	107, 17	00,400	0 737
Tuberose	15,594	25,923	26,653	24,045	24,566	25,590	24,/83	24,602	0.76+
Bickleigh	19,217	21,275	21,533	23,239	24,031	24,181	23,25/	16,3/4	-14.8
Snipe Lake	44,542	52,847	52,781	54,912	54,264	55,431	56,091	54,736	+22.9
Greenan	10,050	10,930	11,970	12,710	12,520	12,831	13,026	13,481	+34.1
Isham	30,218	34,333	33,630	36,803	35,131	37,083	37,126	35,135	+16.6
McGae	13,984	13,371	14,341	16,583	20,455	16,394	15,685	10,732	-23.3
Sanctuary	33,103	45,044	46,146	47,113	47,701	49,517	48,933	48,747	+47.3
Tyner	29,466	35,405	36,006	37,748	39,769	44,234	43,293	41,464	+40.7
Richlea	46,495	53,277	53,782	52,793	55,500	57,264	969,99	51,302	+10.3
Martimo	24,644	30,897	32,932	34,603	35,682	35,900	34,931	38,738	+57.2
Fordan	43,070	49,784	50,285	49,962	50,410	51,945	50,759	47,703	+10.8
D'Arcy	31,888	35,911	36,465	35,007	34,963	35,977	36,782	39,680	+24.4

See footnotes at end of table

TABLE 33. CANADIAN WHEAT BOARD SPECIFIED ACREAGE FOR DELIVERY QUOTA PURPOSES BY DELIVERY POINT, 1962-63 TO 1969-70 (concluded)

Delivery Point	1962-63ª	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	change 1962-63 to 1969-70
					- acres -				
Villages	27 403	21 224	24 750	3/1 3/10	32 217	31 263	28 884	27 146	
Highton	41.098	48,224	46.741	47,462	49,063	49,481	48,833	53.042	+29.1
Glidden	44,524	51,715	51,250	54,600	56,154	58,214	54,951	55,993	+25.8
Netherhill	39,325	42,596	43,711	45,281	47,813	46,817	46,578	47,257	+20.2
Madison	45,273	53,958	53,572	54,813	55,835	57,518	54,415	50,077	+10.6
Fiske	47,031	50,541	48,810	51,033	53,856	54,748	55,118	60,344	+28.5
Macrorie	23,853	27,165	27,311	28,680	28,139	28,413	27,838	27,747	+16.3
Plato	34,635	40,041	41,100	40,986	40,/0/	412,14	41,013	44,024	4.02.
White Bear	39,711	60,489	64,551	63,685	63,570	65,353	64,430	63,22/	7.66+
Stewart Valley	51,518	59,814	61,816	61,244	0//69	60,383	812,10	56,931	+10.5
Lacadena	35,149	52,559	5/,118	53,181	50,769	52,0/3	49,964	49,308	+40.3
Sovereign	34,934	3/,/08	39,131	40,448	41,5/2	41,303	38,805	34, 20	0 0
Wiseton	56,676	63,665	62,490	64,/95	62,406	1/2, 19	64,USU	62,16	4 0.0
Brock	53,/19	54,875	22,08/	70/1/6	507,00	40,007	023,660	661,20	
Towns									
Milden	55,366	61,778	60,711	61,599	64,380	65,848	66,207	64,399	+16.3
Dinsmore	92,132	98,346	99,392	99,879	101,156	102,902	101,224	100,717	+ 0.3
Elrose	40,967	51,384	57,487	57,533	58,977	58,972	58,786	27,600	+40.6
Kyle	35,725	56,933	58,848	60,078	61,092	61,689	61,511	61,303	+71.6
Greater Towns					1	1		r r	
Eston	69,775	83,217	83,399	79,396	82,016	8/,541	84,259	89,/68	1.82+
Rosetown	86,685	106,145	1/9, /01	117,045	131,019	140,053	134,230	131,//0	132.0
Kindersley	85,873	99,283	108,86	104,099	122,/06	128,404	12/,110	126,789	44/.0
LetoT cost Shirts	1 797 491	2 110 601	2,119,840	2.138.758	2.186.320	2.215.107	2,172,643	2,127,185	+18.3
study Area 10tai	1016/6/61	2,110,001	1,1,1,0	1,000,000	0100000		) ) ) ( I		

<sup>a</sup>Durum excluded from specified acreage in 1962-63.

Source: Canadian Wheat Board, Winnipeg.

TABLE 34. NUMBER AND PER CENT OF SPECIFIED ACRES DEVOTED TO CANADIAN WHEAT BOARD GRAINS, a 1962-63 TO 1969-70

December   State   S	acres         %         acres         acres         acres         %         acres         <	Delivery Point	1962	1962-63 <sup>b</sup>	1963-64	3-64	1964	-65	1965	99-	1966-67	-67	1967	-68	1968	69-896	1969-70	-70
4,082         48.9         -<	130   56.0   13.0   1		acres	89	acres	80	cre	%	r e	%	cre	%	cre	%	cre	%	C	%
tron 4,082 48.9	tron 4,082 48.9	oo Small to Classify																
Payme 1,982 55.6 5.6 5.6 5.6 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7	Hyper 1,330 55.6	Руш	1	1	1	ı	1		1	ı	ı	1	1	ı	ı	1	ı	1
Payme 1,330 95.6	Payme 1,330 56 6	Surbiton	4,082	48.9	ŧ	1	i	ı	1	ı	1	i	1	t	ı	ı	t	1
Perfield 4,657 29.0 3.2496 51.8	Perfield 4,557 9.0 8, 3, 35 9, 5 8, 8 9, 9 9, 9 9, 9 9, 9 9, 9 9,	Glen Payne	1,330	55.6	1	ı	1	1	1	ı	ı	i	1	1	1	ı	1	ı
Fig. 19 10 10 10 10 10 10 10 10 10 10 10 10 10	Fig. 5, 50. 2, 50. 6, 51. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	Salthurn	2,678	39.8	3.269			1	ı	1	ı	ı	1	ŧ	1	1	1	1
Perfield 4,567 447 6,002 54.2 4,495 50.9 3,735 55.1 3,075 47.1 3,570 64.0 2,542 64.7 6.00 64.2 6	Height 4, 56 44.7 6 600 54.2 4, 495 60.9 3,735 55.1 3,075 47.1 5,00 56.2 5.2 4.4495 60.9 3,735 55.1 3,075 54.2 5,08 64.5 5.2 5,246 53.8 4.741 6.425 6.455 51.2 5,125		875	29.0	2,496		ı	ı	ı	i	ŧ	1	1	ı	ı		ı	1
The control of the co	The first of the f	Chinorfield	4 567	44.7	6,000		4 495	50 9	3.735	55 1	3.075	47.1	3.570		3,320		ı	1
Fig. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Helper S, 1922 51.7 6, 183 56.2 7, 114 57.3 7, 114 57.3 7, 128 58.5 7, 250 58.3 5, 124 5.2 5.3 6, 100 58.5 5, 100	Venegadino	100°F		0000		701	0.00	0,00	10°	0,0	. 01	0 608		2 544			
es 5,884 51. 6,948 56.2 7,814 57.3 7,914 57.3 7,917 65.2 7,865 58.6 58.6 58.6 58.6 58.6 58.6 58.6 5	es 5,1484 51.7 6,483 56.2 7,814 57.3 6,505 55.2 6,486 53.8 6,476 53.8 6,476 53.4 7,147 57.4 6,685 51.6 6,587 51.0 6,587 51.0 6,486 51.5 6,591 5	Verendrye	4,250	. o. l.	2,092		0,150	0.4.0	4,012	0.00	2,00	1.00	7,000		1,04,7		L V Z V	
6, 44.76 53.5 5, 44.0 c. 44.76 53.5 5, 44.76 5, 44.76 5, 45.8 c. 44.76 5, 47.0 c. 48.5 7, 47.2 5, 48.5 5, 47.2 5, 48.5 7, 44.1 5, 6. 6, 48.5 7, 47.2 5, 48.5 7, 44.1 5, 6. 6, 48.5 7, 47.2 5, 48.5 7, 48	6, 122 45.7 6, 656 51.5 6, 510 50.5 6, 510 65.2 6, 510 50.5 6, 510 65.2 6, 510 65.2 6, 510 50.5 6, 510 65.2 6, 510 50.5 6, 510 65.2 6, 510 50.5 6, 510	Gaines	5,884	21./	6,483		7,114	5/03	/196/	2.29	7,285	58.5	026,/		5,463		14,4	21.0
Fig. 6, 522 45.7 6, 556 51.6 6, 510 50.5 5, 564 46.6 5, 511 50.3 7, 022 48.5 7, 689 46.7 1, 10.6 5, 40.0 45.2 7, 202 48.5 7, 202 49.5 7, 202 50.7 12, 225 50	Fig. 6, 556 51.5 6, 510 50.5 5, 584 46.9 5, 511 6.9 6.9 5, 511 6.9 6.9 5, 511 6.9 6.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5	Mondou	5,142	43.2	196,9		7,830	59.0	068,9	55.2	6,865	53.8	9/4/9		5,346		7,162	59.3
gren 6,084 45.2 8,065 51.6 8,363 52.5 7,441 51.6 7,337 52.3 7,002 48.5 7,680 gren 4,271 40.2 6,677 84.7 6.66 7,610 61.6 8.3 62.9 7,218 84.7 1,227 66.6 7,610 61.0 7,206 62.9 7,219 81.9 1,156 91.9 81.283 gren 1,247 40.2 6,677 84.7 61.0 6,674 61.0 1,158 54.0 11,155 54.0 11	9004         65.2         6.06         61.6         61.04         61.06         62.2         7.337         62.2         7.60         62.2         7.337         62.2         7.60         62.2         7.337         62.2         7.60         62.2         7.60         62.2         7.30         7.20         81.9         7.60         62.2         3.90           ey         10.615         6.67         6.47         7.20         7.20         6.46         8.6         8.2         7.20         6.60         8.7         7.20         8.7         8.2         8.7         9.0         9.30         9.4         9.0	Inglenook	5.522	45.7	6.565		6.510	50.5	5,584	46.9	5,311	50.3	4,794		5,483		4,721	46.1
Figure 5,000 45.2 7,278 54.7 7,227 56.6 6,607 51.0 7,706 52.9 7,279 51.9 8,283 e. 4.27 40.2 6,677 54.0 6,640 52.9 7,706 52.9 7,279 51.9 8,283 e. 4.27 40.2 6,677 54.0 6,640 52.9 7,608 54.2 6,927 58.0 6,546 58.6 3.730 e. 4.27 40.2 6,677 54.0 11,455 54.9 11,165 54.0 12,989 50.3 12,989 50.3 12,975 52.9 11,165 54.0 11,165	green 5,000 45.2 7,278 54.7 7,227 56.6 6,607 51.0 7,206 52.9 7,519 51.9 8,223 56.1 7,556 54.7 40.2 16,670 52.9 11,675 52.0 11,575 54.0 11,155 54.0 11,	Donkill	6 084	45.2	A OAS		8 363	52 S	7 441	51 6	7 337	52 3	7,002		7,680		3,906	44.0
gren 5,140 45.2	gren 4,714 40.2 7,228 34.0 1,033 51.0 11,035 52.4 11,165 54.0 11,155 53.9 11,156 57.0 6,779 94.0 10,615 48.5 11,990 63.4 11,039 51.2 11,655 54.0 11,155 53.9 11,156 57.0 6,779 94.0 11,143 47.7 12,226 51.6 11,939 51.2 11,655 54.0 11,155 53.9 11,156 57.0 6,779 94.0 11,143 47.7 12,226 51.6 11,333 51.0 12,255 52.9 12,174 54.6 12,044 50.7 10,246 53.7 10,100 94.0 11,143 47.7 12,226 51.4 16,330 51.2 11,545 61.0 19,198 60.7 11,145 47.7 12,226 51.4 16,330 51.2 11,245 61.0 19,198 60.7 11,145 47.7 12,226 51.4 16,330 51.2 11,245 61.0 19,198 61.3 13,130 55.0 12,648 53.7 17,933 each 6,332 36.8 12,495 50.9 12,399 50.3 12,157 51.0 19,198 60.7 13,136 54.8 12,136 54.0 12,495 50.7 12,495 50.9 12,399 50.3 12,157 51.0 19,198 62.0 10,007 59.0 12,495 50.7 12,495 51.0 12,495 5	COUNTY	10000	7.0	1000		1000	7 .			1,000	100	7,00,1		, ,		7 506	2 13
ey (4,27) (40,2 6,67) (54,0 5) (5,40 5)	ey (4.271 40.2 6,677 14.0 6.640 52.9 7,608 54.2 6,875 80.0 6,546 58.6 57.7 10,100   8.240 50.1 9,307 54.8 9,210 52.7 8,1165 54.0 11,153 55.9 11,165 57.0 1,000   8.240 50.1 9,307 54.8 9,210 52.7 8,1163 53.8 8,56 45.5 8,997 57.3 9,605 57.7 10,100   8.340 30.8 18,662 55.4 18,333 51.0 12,255 52.9 12,174 54.6 12,014 50.7 10,746 53.7 10,100   8.340 30.8 18,662 55.4 18,333 51.0 12,255 50.9 12,174 54.6 12,014 50.7 10,746 53.7 10,100   8.340 30.8 18,662 55.4 18,333 51.0 12,255 50.9 12,174 54.6 12,014 50.7 10,746 53.7 10,100   8.340 30.8 18,662 55.4 18,333 51.0 12,255 50.9 12,174 54.6 12,014 50.7 10,746 53.7 10,146 53.0 12,889 50.9 12,399 50.9 12,399 60.0 13,300 50.0	Sandgren	5,040	45.2	8/7,1		1,77	20.00	0,007	D. 1c	1,200	52.3	1,619		0,203		0000,7	01.0
une         10,515         48.5         11,900         53.4         11,039         51.2         11,637         52.4         11,165         53.9         11,165         54.5         94.5         94.5         95.6         94.5         95.6         94.5         95.6         95.6         94.5         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.7         95.6         95.8         95.6         95.8         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.8         95.6         95.8         95.6         95.8         95.6         95.6         95.6         95.6         95.6         95.8         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6         95.6	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Witlev	4.271	40.2	6.671	54	6,640	52.9	7,608	54.2	6.927	58.0	6,546		3,730		3,820	45.5
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per 11, 44 37.1 12,226 51.4 18,420 52.1 13,42 52.2 12,174 54.6 19,186 60.7 18,635 56.3 18,994 60.7 18,43 50.3 18,905 55.4 18,800 52.5 18,717 54.0 19,186 60.7 18,653 56.3 18,994 60.7 18,695 50.7 17,724 59.7 17,7	Field 19,43 47.7 12,226 51.4 19,335 52.9 12,174 56.7 10,746 53.7 10,746 53.7 17,913 51.0 12,235 52.9 12,174 54.7 12,236 51.4 18,635 56.3 16,340 55.7 17,913 51.6 16,407 52.5 17,914 56.7 16,405 50.9 12,908 62.5 18,171 54.0 19,198 60.7 18,653 56.3 16,394 55.7 17,913 51.6 16,407 52.5 17,914 56.2 16,28 42.8 12,998 52.9 12,174 56.2 13,130 54.8 12,998 52.9 12,975 52.3 13,130 54.8 12,407 59.8 17,914 56.2 16,28 52.9 13,552 56.0 13,726 57.9 12,407 59.8 52.9 14,499 56.9 13,726 57.9 12,407 59.8 52.9 14,499 56.9 13,726 57.9 12,407 59.8 52.9 14,499 56.9 13,726 57.9 11,338 52.9 9,447 52.1 11,409 52.3 11,334 52.0 16,700 59.0 18,448 55.3 11,338 52.9 14,478 55.7 17,724 54.1 12,407 59.8 12,407 59.8 12,407 59.8 12,407 59.8 12,407 59.8 12,407 59.8 12,407 59.9 11,338 52.9 14,478 55.7 17,724 54.1 12,407 59.9 11,338 52.9 14,478 55.7 14,499 52.8 12,737 52.3 13,828 54.2 18,510 55.7 17,724 54.0 19,526 59.9 11,112 55.9 11,400 51.7 17,724 54.0 19,526 59.0 11,112 55.9 11,400 51.7 17,724 54.0 19,526 59.0 11,112 55.9 11,400 51.7 17,724 54.0 19,526 59.0 11,112 55.9 11,400 51.7 17,724 54.0 19,526 59.0 11,113 52.9 11,400 51.7 17,724 54.0 19,526 59.0 19,724 54.0 1			0.0	- 200	) S	- 0	- 0	0000	1 0	000		2000		0000		1001	E/1 0
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ley 6,390 39.8   18,602 55.4   18,030 52.5   18,171 54.0   19,198 60.7   18,653 56.3   18,994 ador 6,832 36.8   12,495 50.3   12,999 50.3   12,095 51.6   14,551 62.3   13,130 55.0   12,648 sher 6,407 52.5   7,914 55.0   12,495 50.3   15,889 58.0   14,634 52.9   13,522 56.0   13,726 57.9   12,407 worth 7,004 45.8   9,495 56.3   8,496 55.6   9,149 56.9   13,522 56.0   13,726 57.9   12,407 143.4   10,690 53.0   9,495 55.3   13,822 56.0   13,726 57.9   12,407 143.4   10,690 53.0   12,737 52.3   13,828 54.2   14,491 55.7   14,495 55.7   14,488 57.9   11,338 51.0   12,206 46.8   12,737 52.3   13,828 54.2   14,491 55.7   14,495 55.7   14,488 51.0   16,096 46.8   12,292 53.0   11,112 56.9   13,905 57.8   14,797 57.0   17,524 54.0   19,905 51.0   10,674 58.7   14,491 55.	dor 6,339 39.8 18,602 55.4 18,033 62.5 18,171 54.0 19,198 60.7 18,653 56.3 18,994 55.7 17,913 dor 6,332 36.8 12,495 60.3 12,095 60.3 12,097 61.0 19,096 46.4 16,995 60.3 12,095 60.3 12,097 61.0 12,995 60.3 12,097 61.0 12,995 62.0 13,726 62.0 13,726 63.0 19,709 59.8 9,477 5721 43.4 10,690 53.3 9,445 52.9 13,322 56.0 10,007 59.0 8,448 55.2 17,007 59.0 10,	Tichfield	11.143	47.7	12.226	2]	11,393	51.0	12,253	52.9	12,174	54.6	12,014		10,746		9,307	50.4
dor 6,832 36.8 12,495 50.9 12,989 50.1 12,07 51.6 14,551 62.3 13,130 50.0 12,648 51.0 10,968 46.4 10,968 46.4 10,968 55.0 12,989 55.0 11,409 52.3 11,384 52.0 10,007 59.0 12,407 6.2 10,968 47.9 10,560 53.0 9,443 52.1 11,400 52.3 11,384 52.0 12,948 57.9 11,338 12,407 19,266 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 53.5 25,021 54.1 28,077 12,306 45.6 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 14,495 55.7 14,886 11,388 52.0 12,396 55.9 11,338 52.0 10,075 59.0 11,338 15.8 16,006 45.6 15,600 53.5 11,112 56.9 10,315 57.3 10,736 60.0 10,674 58.7 9,997 11,319 51.1 11,400 53.5 11,329 52.6 12,491 51.8 52.9 11,400 51.5 17,724 54.0 10,674 58.7 9,997 11,919 51.1 11,919 51.1 11,919 51.1 11,319 34.1 12,329 52.6 12,491 51.8 13,043 54.2 14,318 59.2 14,318 59.2 14,318 59.2 14,318 59.2 11,319 51.8 11,319 51.8 11,329 52.6 16,565 50.6 16,565 50.6 16,565 50.6 16,565 50.7 17,744 54.0 11,319 34.1 12,329 52.7 17,301 50.4 11,319 34.1 12,329 52.7 17,301 50.4 11,319 34.1 12,329 52.7 17,301 50.4 11,319 34.1 12,329 52.7 17,301 50.4 10,745 52.5 11,301 50.4 10,745 52.5 11,319 51.8 18,725 50.7 11,319 34.1 12,319 51.1 11,319 51.1 11,319 34.1 12,329 52.7 12,320 51.1 12,320 50.7 12,330 50	Fig. 6.83 36.8 12,495 60.9 12,989 60.3 12,075 51.6 14,551 62.3 13,130 55.0 17,648 53.0 11,800 ath 6,407 52.5 7,914 56.2 16,026 42.8 1,634 52.9 12,495 52.3 3,136 52.0 12,498 52.7 2,676 52.8 12,495 52.3 3,136 52.0 12,498 52.7 2,676 52.8 12,402 52.3 13,522 52.9 12,407 59.8 12,407 52.3 13,522 57.9 12,407 59.8 12,721 43.4 10,960 53.0 9,443 52.1 11,400 52.3 11,384 52.0 10,007 59.0 18,448 55.3 7,505 57.9 18,400 52.3 11,384 52.0 10,007 59.0 18,408 52.7 2,478 57.9 11,384 52.0 10,007 59.0 18,408 52.3 11,384 52.0 10,007 59.0 18,408 52.3 11,384 52.0 10,007 59.0 18,408 52.3 11,382 52.9 12,306 45.6 15,202 63.0 11,112 56.9 16,865 57.9 17,724 44.475 55.7 14,886 54.6 15,615 15,009 46.8 12,292 63.0 11,112 56.9 16,865 57.9 17,724 58.7 14,384 52.5 19,997 56.6 10,433 15.8 16,867 57.0 17,724 58.7 14,344 52.5 19,997 56.6 10,433 15.8 16,867 54.9 18,610 55.7 17,724 59.9 19,997 56.6 10,433 15.8 16,867 54.9 18,497 50.2 17,724 50.5 18,498 57.9 19,997 56.6 19,433 15.8 18,498 57.9 19,497 50.2 17,747 59.9 19,497 50.2 17,747 50.2 19,497 50.2 17,747 50.2 19,497 50.2 17,747 50.2 19,497 50.2 17,747 50.2 17,748 50.7 17,748 50.1 14,497 50.2 16,498 57.9 19,497 50.2 17,747 50.2 16,498 57.9 19,497 50.2 17,708 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,748 50.7 17,779 50.7 17,770 50.7		002 0	20 0	18 602	T.	18 030	52 K	18 171	54 O	10 108	60.7	18,653		18 994		17,913	52.9
dor 6,432 36.8 12,439 50.9 12,939 50.3 12,939 50.3 13,136 4.8 12,499 50.3 13,136 4.8 12,499 50.3 12,999 50.3 12,999 50.3 12,999 50.3 13,136 4.8 12,499 50.3 13,136 55.0 13,525 56.0 13,726 57.9 12,407 10,004 45.8 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.9 19,000 52.9 19,049 56.3 19,049 56.3 19,049 56.3 19,049 56.9 19,000 52.9 19,049 56.9 19,049 56.9 19,040 52.3 19,386 52.0 12,948 57.9 11,384 52.0 10,000 59.0 19,049 56.9 19,049 56.9 19,040 52.3 19,049 56.9 19,049 57.0 10,044 59.9 19,040 57.0 10,044 59.9 19,040 57.0 10,044 59.9 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0 19,040 57.0 10,044 59.0	dor 6,402 36.3 16.3 16.3 16.3 16.3 16.3 16.3 16.3	Arier Ley	0,000	0.00	700,01	0 1		7 0	10,01	5.5	00-60		0000		0000		000	000
sher 10,968 46.4 16,687 56.1 16,898 58.0 14,634 52.9 15,875 55.3 3,136 54.8 2,888 89.0 45.4 10,968 46.4 10,968 56.1 15,889 58.0 14,634 52.9 13,522 56.0 13,726 57.9 15,389 58.0 16,909 56.3 13,726 55.0 13,726 57.9 11,338 1.5 10,690 56.3 11,384 52.1 11,384 52.0 15,007 59.0 13,407 51.3 11,384 52.0 15,007 59.0 11,338 11,	ath 6,407 52.5 7,914 66.2 6,026 42.8 4,634 63.1 2,975 52.3 3,136 54.8 52.7 2,504 8 52.8 852.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 2,504 85.8 85.7 3,505 85.9 85.0 13,725 65.0 14,733 65.5 11,735 7.2 11,735 7.2 11,735 7.2 11,740 85.3 11,740 85.2 11,740 85.3 11,740 85.2 11,740 85.3 11,740 85.2 11,740 85.3	Matador	0,832	30.8	17,495	20.	12,989	5000	/60,21	0.10	14,001	07.3	13,130		040,71		11,003	200.
sher 10,968 46.4 16,687 56.1 15,889 58.0 14,634 52.9 13,522 56.0 13,726 57.9 12,407 worth 7,004 45.8 9,049 56.3 8,496 55.6 9,149 56.9 10,330 62.0 10,007 59.0 18,448 1.3	sher 10,968 46.4 16,687 56.1 15,889 58.0 14,634 52.9 13,522 56.0 13,726 57.9 12,407 59.8 9,477 58.8 51.9 10,909 56.3 9,449 56.9 11,338 52.0 10,007 59.0 13,338 52.9 9,540 58.9 11,338 52.9 11,338 52.9 11,338 52.9 9,540 59.0 19,256 47.9 10,690 53.0 9,443 52.1 11,400 52.3 11,348 52.0 12,948 57.9 11,338 52.9 9,540 59.0 18,256 47.9 11,338 52.9 11,339 52.9 11,338 52.9 11,338 52.9 11,338 52.9 11,338 52.9 11,338 52.9 11,338 52.9 11,338 52.9 11,339 52.9 11,349 52.9 11	Ridnath	6.407	52.5	7.914	26.	6.026	42.8	4.634	63.1	2,975	52.3	3,136		2,888		2,6/6	50.9
worth 7,004 45.8 9,049 56.3 8,496 55.6 9,149 56.9 10,330 62.0 10,007 59.0 8,448 es 1,721 43.4 10,690 53.0 9,443 52.1 11,400 52.3 11,384 52.0 12,948 57.9 11,338 es 1,338 62.0 12,948 57.9 11,338 es 1,338 es	worth 7,004 45.8 9,049 56.3 8,496 55.6 9,149 56.9 10,330 62.0 10,007 59.0 8,448 55.3 7,505 es 19,256 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 52.0 12,948 57.9 11,338 52.9 9,540 le se 19,256 47.9 12,306 45.6 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 14,475 55.7 14,886 54.6 15,615 for 10,007 60.0 11,315 51.3 10,724 54.0 13,906 52.4 11,735 for 10,004 46.8 20,986 55.9 11,112 56.9 10,315 57.3 10,736 60.0 11,674 58.7 9,997 56.6 10,433 for 10,004 46.8 11,400 53.5 11,400 50.5 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.7 11,400 50.5	Thracher	10,968	46.4	16,687	26	15,889	28.0	14,634	52.9	13,522	56.0	13,726		12,407		9,477	47.0
Worrn 7,701 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 12,306 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 53.5 25,021 54.1 28,077 19,256 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 53.5 25,021 54.1 28,077 12,306 45.6 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 17,724 54.0 13,396 15.0 16,396 46.8 10.997 10,315 57.3 17,400 57.8 17,073 60.1 17,524 54.0 13,997 10,316 57.9 17,057 57.0 17,556 58.0 14,334 52.9 13,965 57.8 14,797 60.2 15,388 60.1 14,081 10,997 11,400 53.5 11,329 52.6 12,431 53.4 13,403 57.2 14,318 59.2 12,413 52.9 13,995 57.8 14,797 60.2 15,388 60.1 14,081 11,915 39.4 12,705 50.1 17,556 59.0 17,557 59.0 17,556 59.0 17,557 59.0 17,557 59.0 17,556 59.0 17,557 59.0 17,55	Worth 7,004 43.6 9.049 50.3 9,495 50.9 9,149 50.9 10,330 62.9 13,348 52.9 1,340 72.0 12,344 52.0 12,342 52.1 13,828 54.2 11,334 52.0 12,348 57.9 11,338 52.9 9,540 12,306 52.0 12,326 45.6 15,615 12,326 52.0 11,132 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,475 55.7 14,886 54.6 15,615 14,015 12,306 55.9 11,132 56.9 11,132 56.9 11,132 56.9 11,132 56.9 11,132 56.9 11,132 56.9 11,132 50.9 11,139 50.9 11	THE MASINET	10,000		0000	) L	0000	) L	- 000	000	10,00	000	7000		0 1 10		7 505	E 0
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le 19,256 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 53.5 25,021 54.1 28,077    h Siding	le 19,256 47.9 23,428 51.1 22,327 49.4 22,114 51.3 23,142 53.5 25,021 54.1 28,077 53.6 24,789   h Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.6 15,615   hran 12,306 45.6 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 17,24 54.0 19,997 56.6 11,735   is 20,986 55.9 11,112 56.9 10,315 57.3 10,736 60.0 17,556 58.0 14,334 52.5 9,191   leigh 8,882 23.6 13,851 53.4 14,113 52.9 17,400 51.5 17,057 57.0 17,556 58.0 14,334 52.5 9,191   leigh 8,882 46.1 11,400 53.5 11,229 56.6 12,431 53.4 13,043 54.2 15,318 59.2 12,741 54.8 60.1 14,318 52.9 11,329 55.6 12,431 53.4 13,043 54.2 15,318 59.2 12,741 54.9 19,055 42.7 27,483 52.0 27,349 51.8 28,499 51.8 28	Totnes	7,721	43.4	10,690	53.	9,443	1.29	11,400	52.3	11,384	52.0	12,948		11,338		9,540	/./+
h Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.    tran 7,422 56.5 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 17,724 54.0 13,906 52.    to 7,422 56.5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 58.7 9,997 56.    is 16,096 46.8 20,986 55.9 21,213 55.3 17,400 51.5 17,057 57.0 17,556 58.0 14,388 50.1 16,096 46.8 20,986 55.9 13,305 57.8 17,057 57.0 17,556 58.0 14,381 59.2 12,491 51.8 13,043 54.2 14,318 59.2 12,491 51.8 13,043 54.2 14,318 59.2 12,491 51.8 13,043 54.2 14,318 59.2 12,741 54.    han 1,910 55.4 1.7 27,483 52.0 27,349 51.8 28,491 51.8 30,551 56.3 31,942 57.6 30,107 53.    han 1,910 50.1 1,319 34.1 23,770 52.7 19,301 52.4 6,867 56.3 27,202 54.9 26,917 55.    han 7,018 50.1 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,882 57.1 22,486 50.3 19,725 50.3 11,727 33.7 18,727 31.7 27,730 51.0 28,500 53.9 29,848 50.3 21,770 54.7 24,989 56.4 24,882 57.1 22,737 51.1 27,730 51.0 28,500 53.9 29,848 50.3 19,725 50.3 19,729 56.    han 1,1319 34.1 23,770 52.7 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.    han 1,1319 34.1 23,770 55.7 19,407 53.2 29,848 50.3 21,775 50.3 19,729 56.    han 1,1319 34.1 23,770 55.7 19,407 55.0 19,103 54.6 20,515 57.0 20,197 54.	h Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.6 15,615 5 5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 54.0 13,906 52.4 11,735 5	Beadle	19.256	47.9	23.428	5]	22.327	49.4	22,114	51.3	23,142	53.5	25,021		28,077		24,789	49.5
h Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.0 tran 7,422 50.5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 54.0 13,906 52.0 to 10,604 54.0 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 54.0 13,906 52.0 to 10,604 54.0 10,674 54.0 10,674 54.0 13,906 52.0 10,605 45.0 17,556 58.0 18,039 52.7 17,039 57.4 13,043 54.2 17,043 57.4 17,018 50.1 6,916 51.7 8,228 57.3 8,371 50.4 10,754 52.5 9,248 56.4 8,473 54.0 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 11,727 39.7 18,173 51.3 18,520 51.4 18,588 50.3 21,770 54.7 24,889 56.4 28,482 55.7 11,149 45.7 27,203 55.6 18,492 56.1 28,821 57.2 29,566 56.9 30,235 59.0 50.1 11,149 45.7 27,540 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.0 59.1 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	h Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.6 15,615 5 rean 12,306 45.6 15,600 53.5 15,311 50.8 16,867 54.9 18,610 55.7 17,725 50.5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 58.7 9,997 56.6 10,433 51.5 15.8 16,996 46.8 20,986 55.9 21,213 55.3 17,400 51.5 17,057 57.0 17,556 58.0 14,334 52.5 9,191 4 16,996 46.8 20,986 55.9 21,213 55.3 17,400 51.5 17,057 57.0 17,556 58.0 14,334 52.5 9,191 4 16,996 52.4 11,400 51.5 11,400 51.5 17,057 57.0 17,556 58.0 14,334 52.5 9,191 4 19,055 42.7 27,349 51.8 6.8 18,395 51.1 6,066 50.6 6,616 52.4 6,645 53.0 6,851 53.3 6,845 52.8 16,336 61.1 1915 39.4 18,099 52.7 17,078 50.7 19,301 52.4 20,195 57.4 22,387 60.3 19,597 52.8 16,336 6.8 11,319 34.1 22,377 62.7 23,408 50.7 19,301 53.1 26,887 56.7 24,989 56.4 24,823 57.3 21,574 51.8 20,406 43.8 27,27 51.1 27,407 51.0 28,500 53.9 29,848 53.7 31,942 56.1 20,406 43.8 27,27 51.1 27,407 51.0 28,500 51.1 485 60.2 21,675 60.3 19,725 50.3 20,392 51.1 44.5 51.2 27,475 51.1 11,49 45.2 17,203 55.6 18,352 51.1 19,407 53.2 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				-		,									,	
he Siding 7,071 40.8 12,739 52.8 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.0 tran 7,422 50.5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 58.7 9,997 56.	rran 12,306 45.6 15,600 53.5 12,737 52.3 13,828 54.2 14,491 55.7 14,475 55.7 14,886 54.6 15,615 5 5 10,433 5 5 10,510 50.8 15,610 55.7 17,724 54.0 13,906 52.4 11,735 5 10,742 50.5 12,292 63.0 11,112 56.9 10,315 57.3 10,736 60.0 10,674 58.7 9,997 56.6 10,433 5 10,905 46.8 13,881 53.4 14,113 52.9 13,905 57.8 17,005 10,674 58.7 9,997 56.6 10,433 51.8 16,906 46.8 13,881 53.4 14,113 52.9 13,905 57.8 17,005 10,575 50.0 11,575 50.0 14,334 52.5 11,400 53.5 11,329 52.6 12,431 53.4 13,043 54.2 14,318 59.2 14,334 52.9 11,400 53.5 11,329 52.6 12,431 53.4 13,043 54.2 14,318 59.2 12,741 54.8 16,131 50.9 11,319 54.6 16,105 50.0 10,675 50.0 11,319 50.0 11,319 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,081 50.1 14,091 50	1 1 1																
19         7,071         40.8         12,739         52.3         13,828         54.2         14,491         55.7         14,475         55.7         14,886         54.9         15,701         40.8         7,071         40.8         12,336         45.9         18,610         55.7         14,886         54.0         13,906         55.7         17,057         57.0         17,556         58.0         13,906         57.8         14,797         60.0         17,556         58.0         14,334         52.9         18,305         57.8         14,797         60.0         17,556         58.0         14,334         52.9         18,396         57.8         14,797         60.0         17,556         58.0         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.9         14,334         52.	10,7071         40.8         12,739         52.8         12,739         52.8         12,305         52.8         12,306         54.9         14,491         55.7         14,447         55.7         14,886         54.6         15,500         55.7         17,724         54.0         13,906         52.4         11,735         57.0         17,556         58.0         13,907         55.0         17,556         58.0         14,334         52.5         191         44         38.8         55.2         11,735         59.7         17,556         58.0         14,334         52.5         191         44         38.8         60.1         14,334         52.5         9,997         56.6         10,674         58.7         9,997         56.6         10,433         52.9         191         44         38.8         60.1         14,334         52.5         9,191         44         38.8         60.1         14,334         52.5         9,191         44         38.8         60.1         14,438         52.5         9,191         44         38.8         60.1         14,438         52.5         9,191         44         38.8         60.1         14,438         52.5         19,191         49.8         48.8         60.2         <	surers					!						1		000	, L		(
12,306         45.6         15,311         50.8         16,867         54.9         18,610         55.7         17,724         54.0         13,906         52.           7,422         50.5         12,292         63.0         11,112         56.9         10,315         57.3         10,736         60.0         10,674         58.7         9,997         56.           16,096         46.8         20,986         55.9         13,915         57.8         14,705         57.0         17,556         58.0         14,334         52.         14,338         50.0         14,338         50.1         14,338         50.1         14,338         50.1         14,338         50.1         14,338         50.2         14,338         50.2         12,431         53.4         13,043         54.2         14,338         50.2         14,438         50.2         14,408         55.5         11,329         52.6         12,431         53.4         54.2         14,318         59.2         12,41         54.2         14,318         59.2         12,41         54.2         14,41         54.2         14,41         54.2         14,41         54.2         14,41         54.2         14,41         54.2         14,41         54.2 <t< td=""><td>12,306         45.6         15,600         53.5         15,311         50.8         16,867         54.9         18,610         55.7         17,724         54.0         13,906         52.4         11,735         5           7,422         50.5         12,292         63.0         11,112         56.9         10,315         57.3         10,736         60.0         10,674         58.7         9,997         56.6         10,433         57.8         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.8         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4</td><td>Leach Siding</td><td>7,071</td><td></td><td>12,739</td><td>52.</td><td>12,737</td><td>52.3</td><td>13,828</td><td>54.2</td><td>14,491</td><td>25./</td><td>14,4/5</td><td>55.</td><td>14,886</td><td>24.6</td><td>15,615</td><td>ż</td></t<>	12,306         45.6         15,600         53.5         15,311         50.8         16,867         54.9         18,610         55.7         17,724         54.0         13,906         52.4         11,735         5           7,422         50.5         12,292         63.0         11,112         56.9         10,315         57.3         10,736         60.0         10,674         58.7         9,997         56.6         10,433         57.8         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         56.6         10,433         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.8         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4         57.4	Leach Siding	7,071		12,739	52.	12,737	52.3	13,828	54.2	14,491	25./	14,4/5	55.	14,886	24.6	15,615	ż
7,426         45.5         19,100         51.5         19,100         51.5         19,200	7,520 45.8 (19,64) 46.8 (20,986 55.9 11,112 56.9 10,315 57.3 10,756 60.0 10,644 58.7 9,997 56.6 10,433 52.9 11,112 56.9 11,319 57.3 10,756 60.0 10,644 58.7 9,997 56.6 11,433 52.9 11,132 52.9 13,915 57.8 14,797 60.2 15,388 60.1 14,081 56.8 13,111 53.8 11,400 53.5 11,329 52.6 12,431 53.4 13,043 54.2 14,318 59.2 12,741 54.8 8,496 51.8 19,055 42.7 27,349 51.8 28,491 51.8 13,043 54.2 14,318 59.2 12,741 54.8 8,496 51.1 19,055 42.7 27,349 51.8 10,536 40.1 11,400 53.5 11.1 1,400 53.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.7 11.1 1,400 52.1 1,400 53.5 11.1 1,400 52.1 1,400 53.5 11.1 1,400 52.1 1,400 53.5 11.1 1,400 52.1 1,400 53.5 11.1 1,400 53.5 11.1 1,400 52.1 1,400 53.5 11.1 1,400 53.2 1,400 53.5 11.1 1,400 53.5 11.1 1,400 53.2 11.1 1,400	MACHINE	10 200		15 600	23	15 211	200	16 267	27 0	18 610	55 7	17 724	24	13 906	52 4	11 735	
7,422         50.5         17,172         50.5         10,515         57.5         10,505         40.5         10,515         50.5         10,515         50.5         10,515         50.5         10,515         50.5         10,515         50.5         10,517         50.5         10,517         50.5         10,517         50.5         50.5         10,517         50.5         50.5         10,517         50.5         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         10,517         50.5         50.5         10,517         50.5         50.5         50.5         10,517         50.5         50.5         6.66         52.4         6.645         53.0         6.851         53.3         6.845         52.0         70.5         70.5         70.5         70.5         70.5         70.5         70.5         70.5         <	7,422         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,730         50.5         10,731         50.5         10,731         50.5         10,731         50.5         10,732         50.5         10,732         50.5         10,732         50.5         10,732         50.5         10,732         50.5         10,732         50.5         10,732         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.5         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         10,741         50.7         50.7         50.7         50.8         50.2         50.7         50.9         50.3         50.7         50.8 <td>MCMOLTAIL</td> <td>12,300</td> <td></td> <td>00000</td> <td>3 6</td> <td></td> <td>0.0</td> <td>0,00</td> <td></td> <td>0,00</td> <td></td> <td>10,671</td> <td>- 0</td> <td>2000</td> <td>200</td> <td>10 400</td> <td></td>	MCMOLTAIL	12,300		00000	3 6		0.0	0,00		0,00		10,671	- 0	2000	200	10 400	
16,096         46.8         20,986         55.9         21,713         55.3         17,400         51.5         17,057         57.0         17,556         58.0         14,344         52.9         13,905         57.8         14,797         60.2         15,388         60.1         14,081         56.2         14,318         59.2         14,081         56.3         16,885         58.0         14,081         56.3         16,885         56.3         16,885         58.0         14,081         56.3         16,885         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         17,071         59.2         4,685         50.3         19,597         59.2         4,685         59.2         59.4         59.2         59.4         59.4         59.2         59.4         59.4         59.2         59.4         59.4         59.2         59.4         59.2         59.4         59.2         59.4         59.2         59.4         59.2         59.4         59.2         59.4         59.2         59.4         59.2         59.	16,096 46.8 20,986 55.9 21,273 55.3 17,400 51.5 17,057 57.0 17,556 58.0 14,344 52.5 9,191 4  8,878 46.1 11,400 53.5 11,3905 57.8 14,797 60.2 15,388 60.1 14,081 56.8 13,111 5  8,878 46.1 11,400 53.5 11,3905 57.8 14,797 60.2 15,388 60.1 14,081 56.8 13,111 5  8,878 46.1 11,400 53.5 11,3905 57.8 14,797 60.2 15,388 60.1 14,081 56.8 13,111 5  19,055 42.7 27,483 52.0 27,349 51.8 28,491 51.8 30,551 56.3 31,942 57.6 30,107 53.7 27,417 5  4,692 46.6 5,595 51.1 6,065 50.6 6,661 52.4 6,645 53.0 6,851 53.3 6,845 52.8 16,336 4  11,915 39.4 18,099 52.7 17,078 50.7 19,301 52.4 20,195 57.4 22,367 60.3 19,597 52.8 16,336 4  11,319 34.1 23,770 52.7 23,408 50.7 28,503 29,848 53.7 27,202 54.9 26,917 55.0 24,692 51.1 11,1319 34.1 23,770 52.7 23,408 50.7 28,503 29,848 53.7 31,942 55.7 29,663 52.3 23,057 4  20,406 43.8 27,27 51.1 27,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,392 51.1 17,203 55.6 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 51.0 10,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Bratton	7746/		767,21	000	711611	20.3	10,010	0.70	100/00	0.00	10,01	0 0	100,0	0 1	001	, J
3,682         23.6         13,851         53.4         14,113         52.9         13,905         57.8         14,797         60.2         15,388         60.1         14,081         56.           8,878         46.1         11,400         53.5         11,329         52.6         12,431         53.4         13,043         54.2         14,318         59.2         12,741         54.           19,055         42.7         27,483         52.0         5.6         6.661         52.4         6,645         53.0         6,851         53.3         6,845         52.           11,915         39.4         18,099         52.7         17,078         50.7         19,301         52.4         20,195         57.4         22,367         60.3         19,597         52.           7,018         50.1         6,916         51.7         8,228         57.3         8,371         50.4         10,754         52.5         9,248         56.4         8,473         54.           11,319         34.1         18,722         51.3         18,520         51.4         18,788         50.3         21,770         52,367         60.3         51.3         54.8         55.4         26,917         55.3	3,682 23.6 13,851 53.4 14,113 52.9 13,905 57.8 14,797 60.2 15,388 60.1 14,081 56.8 13,111 5 8,878 46.1 11,400 53.5 11,329 52.6 12,431 53.4 13,043 54.2 14,318 59.2 12,741 54.8 8,496 5 19,055 42.7 27,483 52.0 27,349 51.8 28,491 51.8 13,043 54.2 14,318 59.2 12,741 54.8 8,496 53.7 27,417 54.8 52.9 10,575 52.1 11,319 52.1 11,919 52.1 11,919 52.1 11,919 52.1 11,919 52.1 12,413 51.3 19,42 52.36 6.851 53.3 6,845 52.5 6,665 40.8 11,919 52.1 12	Glamis	16,096		20,986	55.	21,213	55.3	17,400	51.5	17,057	27.0	17,556	200	14,334	52.5	9,191	
8,878         46.1         11,400         53.5         11,329         52.6         12,431         53.4         13,043         54.2         14,318         59.2         12,741         54.           19,055         42.7         27,483         52.0         27,349         51.8         28,491         51.8         30,551         56.3         31,942         57.6         30,107         53.           4,692         46.6         5,595         51.1         6,065         50.6         6,661         52.4         6,645         53.0         6,851         53.3         6,845         52.         30,107         53.           11,915         39.4         18,099         52.7         17,078         50.7         19,301         52.4         20,195         57.4         22,367         60.3         19,597         56.         56.8         57.4         52.3         6,87         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3         19,597         56.3<	8,878 46.1 11,400 53.5 11,329 52.6 12,431 53.4 13,043 54.2 14,318 59.2 12,741 54.8 8,496 5 19,055 42.7 27,483 52.0 27,349 51.8 28,491 51.8 30,551 56.3 31,942 57.6 30,107 53.7 27,417 54.8 19,055 42.7 27,483 52.0 27,349 51.8 28,491 51.8 30,551 56.3 31,942 57.6 30,107 53.7 27,417 54.8 28,491 51.8 30,551 56.3 31,942 57.6 30,107 53.7 27,417 51.8 20,405 51.1 6,916 51.7 8,228 57.3 8,371 50.4 10,744 52.5 9,248 56.4 8,473 54.0 16,336 4 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 56.4 26,917 55.0 24,692 511,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 56.4 24,823 57.3 21,770 54.7 24,989 56.4 24,823 57.3 22,507 411,149 45.2 17,203 55.6 18,352 51.1 19,161 55.3 21,485 60.2 21,675 60.3 19,295 55.6 56.9 30,235 56.5 20,139 56.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Tuhernse	3,682		13,851	53,	14,113	52.9	13,905	57.8	14.797	60.2	15,388	60.	14,081	56.8	13,111	m.
6,676         46.1         1,500         35.2         11,520         35.2         11,500         35.2         11,500         35.2         11,500         35.2         11,500         35.2         11,500         35.2         11,500         35.2         11,500         35.2         11,500         35.2         46.6         55.3         6,645         55.3         6,851         57.6         30,107         53.2         4,645         52.3         46.45         52.3         6,851         53.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,945         52.3         6,948         52.4         8,473         54.2         54.3         54.4         55.3         54.4         55.3         54.4         55.3         54.4         55.4         52,367         6,945         55.2         54.4         52,367	19,675 46.1 11,400 35.2 11,528 32.8 16,451 55.3 31,942 57.6 13,717 57.7 19,505 46.1 11,915 39.4 11,520 35.3 11,520 35.3 11,942 57.6 10.3 11,915 39.4 11,578 52.0 11,578 50.7 19,301 52.4 20,195 57.4 22,367 60.3 19,597 52.8 16,336 47,518 50.1 11,915 39.4 18,099 52.7 17,078 50.7 19,301 52.4 20,195 57.4 22,367 60.3 19,597 52.8 16,336 47,518 50.1 6,916 51.7 8,228 57.3 8,371 50.4 10,754 52.5 9,248 56.4 8,473 54.0 5,386 51.1 11,319 34.1 25,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.0 24,692 51.1 17,727 39.7 18,173 51.3 18,788 50.3 29,848 53.7 31,942 55.7 29,565 50.3 19,729 56.5 22,392 51.1 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 22,392 51.1 11,149 45.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4		1000		000	0 (	11 220	7 03	10 / 01	E 2 A	12,042	EA 2	212 11	20	17, 21	2/2	8 106	_
19,055 42.7 27,483 52.0 27,349 51.8 28,491 51.8 30,551 56.3 51,942 57.6 50,107 55. 44,692 46.6 5,595 51.1 6,065 50.6 6,661 52.4 6,645 53.0 6,851 53.3 6,845 52. 11,915 59.4 18,099 52.7 17,078 50.7 19,301 52.4 22,367 60.3 19,597 52. 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55. 11,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,823 57. 20,406 43.8 27,237 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52. 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,565 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	19,055 42.7 27,448 55.0 27,349 51.8 28,491 51.8 30,551 55.0 6,845 52.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.3 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 53.0 6,845 52.5 6,655 40.0 52.4 692 53.0 6,916 51.7 8,228 57.3 8,371 50.4 10,754 52.5 9,248 56.4 8,473 54.0 5,386 51.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 56.4 24,823 57.3 24,692 51.1 17,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,823 57.3 21,574 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 57.3 51.3 57.0 52.7 573 54.8 28,027 56.1 28,821 57.2 29,565 50.3 19,729 56.5 20,392 56.1 11,149 45.2 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 51.0 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Bickleign	0,0,0		11,400	001	11,329	0.70	16,401	1.00	2,000	7.40	010,11	7 7 7	16,71	10	0,100	- 0
4,692         46.6         5.4         6,645         53.0         6,851         53.3         6,845         52.3           11,915         39.4         18,099         52.7         17,078         50.7         19,301         52.4         20,195         57.4         22,367         60.3         19,597         52.           7,018         50.1         6,916         51.7         23,408         50.7         25.4         20,195         57.4         22,367         60.3         19,597         55.           11,319         34.1         23,770         51.7         23,408         50.7         25.31         26,867         56.3         27,202         54.9         26,917         55.9         57.7         20,87         56.3         19,77         54.9         56.4         26,917         55.3         20,88         50.3         19,70         54.7         28,500         53.9         29,848         53.7         31,942         55.7         29,653         57.         29,663         57.         29,663         57.         29,663         57.         29,663         57.         59,653         57.         59,663         57.         50,519         57.         57.66         56.3         19,729         56.	4,692       46.6       5.595       51.1       6,065       50.6       52.4       6,645       53.0       6,851       53.3       6,845       52.5       6,665       4         11,915       39.4       18,099       52.7       17,078       50.7       19,301       52.4       20,195       57.4       22,367       60.3       19,597       52.8       16,336       4         7,018       50.1       6,916       51.7       23,408       50.7       25,401       10,754       52.5       54.8       54.0       5,386       56.9       5,386       56.3       24,692       56.91       50.9       54.8       55.0       24,692       56.91       50.9       56.9       57,40       50.5       57.4       50.9       56.9       57.7       56.9       56.9       56.9       57.7       56.9       56.9       56.9       57.7       56.9       56.9       57.7       56.9       56.9       57.7       56.9       56.	Shipe Lake	19,055		27,483	52.	27,349	δ. α	78,491	2	30,551	56.3	31,942	5/	30,10/	23./	114617	Š.
11,915 39.4 18,099 52.7 17,078 50.7 19,301 52.4 20,195 57.4 22,367 60.3 19,597 52.  7,018 50.1 6,916 51.7 8,228 57.3 8,371 50.4 10,754 52.5 9,248 56.4 8,473 54.  11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.  11,1727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 29,848 53.7 24,989 56.4 24,823 57.  20,406 43.8 27,273 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52.  11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.  20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.  16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	11,915 39.4 18,099 52.7 17,078 50.7 19,301 52.4 20,195 57.4 22,367 60.3 19,597 52.8 16,336 4  7,018 50.1 6,916 51.7 8,228 57.3 8,371 50.4 10,754 52.5 9,248 56.4 8,473 54.0 5,386 5  11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.0 24,692 5  11,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,823 57.3 21,574 5  20,406 43.8 27,237 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52.3 23,057 4  11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,392 5  20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5  16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Greenan	4.692		5 595	2]	6,065	50.6	6,661	52.4	6,645	53.0	6,851	53.	6,845	52.5	6,665	ത്
T, 918 50.1 6, 916 51.7 8, 228 57.3 8, 371 50.4 10, 754 52.5 9, 248 56.4 8, 473 54.7 11, 319 34.1 23, 770 52.7 23, 408 50.7 25, 031 53.1 26, 867 56.3 27, 202 54.9 26, 917 55.1 11, 727 39.7 18, 173 51.3 18, 520 51.4 18, 988 50.3 21, 770 54.7 24, 989 56.4 24, 823 57.2 20, 406 43.8 27, 237 51.1 27, 470 51.0 28, 500 53.9 29, 848 53.7 31, 942 55.7 29, 653 52.2 11, 149 45.2 17, 203 55.6 18, 492 56.1 19, 161 55.3 21, 485 60.2 21, 675 60.3 19, 729 56.1 10, 148 46.7 27, 640 55.5 27, 573 54.8 28, 027 56.1 28, 821 57.2 29, 566 56.9 30, 235 59.1 16, 108 50.5 18, 352 51.1 19, 407 53.2 19, 247 55.0 19, 103 54.6 20, 515 57.0 20, 197 54.	7,018 50.1 6,916 51.7 8,228 57.3 8,371 55.4 10,754 52.5 9,248 56.4 8,473 54.0 5,386 5 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.0 24,692 5 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.0 24,692 5 11,727 39.7 18,173 51.3 18,520 51.4 18,888 50.3 21,770 54.7 24,989 56.4 24,823 57.3 21,574 5 11,727 39.7 18,173 51.1 27,470 51.0 28,500 53.9 29,448 53.7 31,942 55.7 29,653 52.3 23,057 4 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,242 56.1 19,161 55.3 29,566 56.9 30,235 59.6 28,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4		11,015		18,000	70	17,078	50 7	19 301	52 A	20, 195	57.4	22,367	60	19,597	52.8	16,336	,
ry         1,018         50.1         6,910         51.7         8,228         57.3         6,371         50.4         10,34         35.4         50.3         57.4         50.4         50.4         50.4         50.4         50.4         50.4         64.8         50.3         51.7         54.8         55.7         26,917         55.3         56.8         56.3         57.7         54.9         56.9         56.9         57.7         57.7         57.9         56.9         57.9         56.4         56.4         56.9         57.7         57.7         57.4         58.5         56.0         53.9         59.848         53.7         31,942         56.7         29,653         57.2         56.5         57.2         56.6         57.7         50,653         57.2         56.6         56.7         29,653         57.2         56.6         56.6         56.0         57.2         50,653         56.7         50,653         56.5         57.2         56.6         56.0         57.2         56.6         56.0         57.2         56.6         56.0         57.2         59,653         56.9         57.2         56.6         56.0         57.2         56.6         56.0         57.2         57.2         56.6	7,018 50.1 6,916 51.7 8,228 57.3 6,371 50.4 10,754 52.5 57.20 54.9 56.4 56.97 57.0 57.0 57.0 57.0 57.0 57.0 57.0 57.	Ishaiii	1,910		0000	. 7.7	0000		0,00	100	10,10		0000	0 U	0 772	0 0	200, 1	
ry     11,319     34.1     23,770     52.7     23,408     50.7     25,031     53.1     26,867     56.3     27,202     54.9     26,917     55.       11,727     39.7     18,173     51.3     18,520     51.4     18,988     50.3     21,770     54.7     24,989     56.4     24,823     57.       20,406     43.8     27,237     51.1     27,470     51.0     28,500     53.9     29,848     53.7     31,942     55.7     29,653     52.       11,149     45.2     17,203     55.6     18,492     56.1     19,161     55.3     21,485     60.2     21,675     60.3     19,729     56.       20,118     46.7     27,640     55.5     27,573     54.8     28,027     56.1     28,821     57.2     29,566     56.9     30,235     59.       16,108     50.5     18,352     51.1     19,407     53.2     19,247     55.0     19,103     54.6     20,515     57.0     20,197     54.	ry 11,319 34.1 23,770 52.7 23,408 50.7 25,031 53.1 26,867 56.3 27,202 54.9 26,917 55.0 24,692 5 5 1 11,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,923 57.3 21,574 5 11,727 39.7 18,173 51.1 27,470 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52.3 22,057 4 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,3392 56.1 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	McGee	7,018		916,9	2	8,228	5/.3	8,3/	50.4	10,/24	27.5	9,248	20.	8,4/3	0.40	2,300	ċ
11,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,823 57. 20,406 43.8 27,237 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52. 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56. 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	11,727 39.7 18,173 51.3 18,520 51.4 18,988 50.3 21,770 54.7 24,989 56.4 24,823 57.3 21,574 5 5 20,406 43.8 27,237 51.1 27,470 51.0 28,500 53.9 29,848 53.7 31,942 55.7 29,653 52.3 23,057 4 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,392 5 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Sanctuary	11,319		23,770	52.	23,408	50.7	25,031	53.1	26,867	56.3	27,202	54.	26,917	55.0	24,692	50.7
20,406 43.8 27,237 51.1 27,470 51.0 28,500 55.9 29,848 53.7 31,942 55.7 29,653 52. 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56. 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	20,406 43.8 27,237 51.1 27,470 51.0 28,500 55.9 29,848 53.7 31,942 55.7 29,653 52.3 23,057 4 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,392 5 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4		707 11		18 173	7	18 520	51 A	18 988	50 3	27 770	54 7	24 989	56	24.823	57.3	21.574	~
20,406 43.8 27,23 11.1 27,470 51.0 26,500 55.9 29,645 55.7 21,645 55.7 27,640 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56. 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	20,406 43.8 27,237 31.1 27,470 31.0 20,300 32.9 23,040 33.7 31.3 19,725 32.3 22,3392 55.1 11,149 45.2 17,203 55.6 18,352 51.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,3392 56.1 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	lyner	1707 00		10,000	5 [	07 7 770		000000000000000000000000000000000000000	000	000000	E 2 7	000 12	, ra	20 653	E 2 2	23 057	
; 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56. 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	; 11,149 45.2 17,203 55.6 18,492 56.1 19,161 55.3 21,485 60.2 21,675 60.3 19,729 56.5 20,392 5 20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Richlea	20,406		7,73/	2	0/4,7	D: 10	78,500	53.5	23,848	23.7	21,342	000	22,000	5.20	100,02	÷ (
20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59. 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	20,118 46.7 27,640 55.5 27,573 54.8 28,027 56.1 28,821 57.2 29,566 56.9 30,235 59.6 25,139 5 16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Martimo	11 149		17,203	55	18.492	56.1	19,161	55.3	21,485	60.2	21,675	90	19,729	56.5	20,392	å
20,118 46.7 27,040 20.9 27,373 24.0 20,021 26,021 37.2 25,500 20,530 20,	20,118 46.7 27,040 20.5 27,073 54.6 20,515 57.0 20,129 54.9 19,217 46.0 20,515 57.0 20,197 54.9 19,212 4	אמן נווונ	000		27 270	) L	07 7 70	0 7	20 007	1 22	20 001	E7 2	20 266	1	20 025	50 G	26 120	
16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.	16,108 50.5 18,352 51.1 19,407 53.2 19,247 55.0 19,103 54.6 20,515 57.0 20,197 54.9 19,212 4	Forgan	20,118		77,040	200	C/C 17	04.0	170,02	1.00	170,07	7.70	29,300	0 1	30,233	0.00	20,109	j (
		D'Arcv	16,103		18,352	2]	19,407	53.2	19,247	55.0	19,103	54.6	20,515	57.	20,197	54.9	19,212	48.4

TABLE 34. NUMBER AND PER CENT OF SPECIFIED ACRES DEVOTED TO CANADIAN WHEAT BOARD GRAINS, a 1962-63 TO 1969-70 (concluded)

Delivery Point	1962	1962-63 <sup>b</sup>	1963-64	-64	1964-65	65	1965	99-596	1966-67	-67	1967-68	89-	1968-69	69-	1905	202-10
	acres	96	acres	%	acres	86	acres	%	acres	96	acres	%	acres	%	acres	96
Villages Rountv	14,430	52.5	20,122	58.6	20,086	57.8	19,166	55.8	19,388	60.2	17,502	56.0	16,646	57.6	14,087	51.9
Hughton	18,586	45.2	25,797	53.5	26,136	55.9	26,007		29,613	60.4	30,183	0.6	28,/59		177, 72	
Glidden	19,530	43.9	26,184	9.09	26,672	52.0	27,434		29,483	25.5	30,894	53.1	20,431		20,230	
No+berhill	18,841	47.9	22,291	52.3	22,783	52.1	23,421		25,488	53,3	24,723	52.8	24,991		23,119	
Madison	18,813	41.6	27,417	50.8	27,917	52.1	26,717		30,880	55.3	31,443	54./	29,458		70,700	
7 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	24,611	52.3	26,105	51.7	25,895	53.1	26,878		28,226	52.4	29,22/	53.4	167,62		30,100	
Macronie	11,065	46.4	15,879	58.5	13,967	51.1	15,223		15,589	55.4	15,1/3	53.4	15,48/		75,437	
Plato	14,687	42.4	21,071	52.6	21,624	52.6	21,577		22,890	56.2	23,509	5/.0	22,325		33,180	
White Bear	12,140	30.6	33,963	56.1	34,288	53.1	36,336		40,15/	53.2	40,327	62.7	31,731		22,027	
Stewart Valley	22,604	43.9	31,021	51.9	31,121	50.3	31,253		37,6/1	54.0	32,020	23.0	26,533		25,868	
Lacadena	11,557	32.9	27,201	51.8	29,738	52.1	29,266		64,47	- 00	72, 404	0.00	20,323		17 836	
Sovereign	17,552	44.0	20,018	53.1	21,040	53.8	23,754		24,436	200.00	75, 757	000	26,903		31 945	
Wiseton	25,527	45.0	33,592	52.8	31,731	20.8	32,86/		32,286	51.7	700,00	0.00	00,00		20 255	
Brock	26,015	48.4	28,897	52.7	28,484	51.2	29,452		28,636	50.3	72,144	0.10	20,100		, ,	
Towns	27,998	50.6	36.417	58.9	34,490	56.8	37,025		39,758		38,343	58.2	37,918	57.3	34,208	53.1
Dinsmore	45,582	49.5	54,330	55.2	53,260	53.6	54,519		58,599		58,511	20.00	57,399		24,101	
Elrose	17,395	42.5	29,538	57.5	32,070	55.8	31,562	54.9	33,839	57.4	34,/40	50.0	33,073		32,789	
Kyle	10,065	28.2	31,429	55.2	31,446	53.4	33,423		20,433		600		5			
Greater Towns											6	ľ	7		N 50 N	
Eston	32,326		42,440		42,898	51.4	43,253		46,774	57.0	50,566	5/2	77 888		69,407	
Rosetown	37,890	43.7	59,322	55.9	58,004	53.9	63,152	54.0	69,133	57.3 56.4	73,651	57.4	73.049	57.5	64,537	50.9
Kindersley	39,801		25,017		23,412	. +0	34,100		,,,,	•		)				
Study Area Total	802,284	44.6	1,133,605	53.7	1,124,614	53.1	1,146,948	53.6	1,232,613	56.4	1,251,404	56.5	1,198,107	55.1	1,080,766	50.8
Study Area lotal	107,200	-	200000000000000000000000000000000000000	)												

 $^{\rm 4}{\rm Wheat}$  Board Grains are: Wheat, Durum, Oats, Barley.  $^{\rm 4}{\rm Durum}$  excluded from Wheat Board Grains in 1962-63.

Source: Canadian Wheat Board, Winnipeg.

# Quotas Required to Fill Elevator Storage Capacity

Table 35 shows the relationship between elevator storage capacity and specified acreage as these relate to the general quota. The ratio of bushel capacity to specified acreage represents the number of quotas, in bushels per acre, required to completely fill an empty delivery point. As specified acres increase relative to storage capacity the number of quotas needed decrease, and vice versa. The lower the ratio the greater is the demand for space at a delivery point.

There does not appear to be any correlation between size of community and the ratio. The ratio varies from a low of 1.9 at Greenan to a high of 16.9 at Witley. Storage capacity at Greenan since 1962-63 has remained unchanged at 25,000 bushels but specified acreage increased 34.1 per cent (Table 33) resulting in a decrease in the capacity-to-specified acres ratio from 2.5 to 1.9. Storage capacity at Witley also remained unchanged but a 20.9 per cent decrease in specified acreage (Table 33) pushed the ratio up to 16.9 from 13.4 during the same period.

The average number of quotas required to fill existing capacity in this study area is 6.7. The median number is 6.2. Hence, about one half the delivery points could accommodate a 6 bushel general quota, assuming zero inventory and no outward shipments, and about half could not. For example, Gunnworth would only be half full whereas Leach Siding would only be able to hold about half of a 6 bushel quota. To the extent the Canadian Wheat Board seeks to equalize quota levels among producers to that extent also will those points with a low capacity-to-specified acres ratio maintain a higher throughput ratio than those points with a high capacity-to-specified acres ratio.

Table 35 also shows the approximate number of railway boxcars needed at each delivery point to transport a one bushel quota. The required number of boxcars depends directly on the number of specified acres and as such generally increases with the size of community. The range is from 3 at Ridpath to 66 at Rosetown. In all 1,064 boxcars are needed to move a one bushel quota out of the study area.

Given that the supply of boxcars at any point in time is limited, one might say that a point like Bratton has a disadvantage relative to say, Witley. Bratton requires 10 cars to move one quota and can only store 2.6 bushel quotas; whereas, Witley requires half as many boxcars, 5, but can store 16.9 bushel quotas.

 $<sup>^{1}</sup>$ The through-put ratio is the total bushel receipts of a delivery point in one year divided by the total bushel storage capacity. See Table 43.

TABLE 35. NUMBER OF QUOTAS PER SPECIFIED ACRE REQUIRED TO FILL ELEVATOR STORAGE CAPACITY, AND NUMBER OF BOXCARS REQUIRED TO MOVE A ONE BUSHEL QUOTA, BY DELIVERY POINT, 1969-70

Delivery Point	Elevator Bushel Capacity <sup>a</sup>	Specified Acres	Number of Quotas to Fill Capacity <sup>b</sup>	Number of Boxcars to move a One Bushel Quota
Pym Surbiton Glen Payne Saltburn Lille Chipperfield Verendrye Gaines Mondou Inglenook Penkill Sandgren Witley Fortune Juniper Tichfield Anerley Matador Ridpath Thrasher Gunnworth Totnes Beadle	28,000 39,000 Closed Closed 28,000 61,000 50,000 99,700 108,000 45,000 72,000 52,000 142,000 165,700 51,000 79,000 94,300 103,000 68,000 167,000 172,000 164,000 223,000	Storage only Storage only Storage only Storage only Storage only 9,138 12,086 10,234 8,881 14,542 8,390 14,289 18,426 18,481 33,872 23,308 5,253 20,146 14,222 20,001 50,073	10.9 8.9 4.4 8.1 3.6 16.9 11.6 2.8 4.3 2.8 4.4 12.9 8.3 12.1 8.2 4.5	5 7 6 5 8 10 10 17 12 3 11 8
Hamlets Leach Siding McMorran Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime	92,000 144,000 50,000 265,100 192,300 100,000 368,000 25,000 273,500 72,000 262,000 246,500 474,000 219,700	30,013 23,138 19,408 19,468 24,602 16,374 54,736 13,481 35,135 10,732 48,747 41,464 51,302 38,738	3.1 6.2 2.6 13.6 7.8 6.1 6.7 1.9 7.8 6.7 5.4 5.9 9.2 5.7	15 12 10 10 13 9 28 7 18 6 25 21 26 20

TABLE 35. NUMBER OF QUOTAS PER SPECIFIED ACRE REQUIRED TO FILL ELEVATOR STORAGE CAPACITY, AND NUMBER OF BOXCARS REQUIRED TO MOVE A ONE BUSHEL QUOTA, BY DELIVERY POINT, 1969-70 (concluded)

Delivery Point	Elevator Bushel Capacity <sup>a</sup>	Specified Acres	Number of Quotas to Fill Capacity <sup>b</sup>	Number of Boxcars to move a One Bushel Quota <sup>C</sup>
Forgan	526,000	47,703	11.0	24
D'Arcy	137,100	39,680	3.5	20
Villages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiseton Brock	186,000 429,100 428,700 285,000 576,500 241,000 67,000 225,800 294,000 203,000 220,000 353,900 362,600 330,100	27,146 53,042 55,993 47,257 50,077 60,344 27,747 44,824 63,227 56,931 49,308 39,198 61,529 62,153	6.9 8.1 7.7 6.0 11.5 4.0 2.4 5.0 4.7 3.6 4.5 9.0 5.9	14 27 28 24 25 31 14 23 32 29 25 20 31 32
Towns Milden Dinsmore Elrose Kyle	471,600	64,399	7.3	33
	583,900	100,717	5.8	51
	392,000	57,600	6.8	29
	344,800	61,303	5.6	31
Greater Towns Eston Rosetown Kindersley	641,100	89,768	7.1	45
	1,196,900	131,770	9.1	66
	981,000	126,789	7.7	64
Total Study Area	14,272,900	2,127,185	6.7	1,064

 $<sup>^</sup>a$ As at August 1, 1969, <u>Grain Elevators in Canada, 1969-70</u>, Board of Grain Commissioners, Winnipeg.  $^b$ Ratio of bushel capacity to specified acres, assuming a zero inventory

<sup>&</sup>lt;sup>C</sup>Assume 2,000 bushels per boxcar.

## Number of Boxcars per Shunt that Can be Loaded

The number of boxcars that an elevator operator can load in one group is limited by the length of the rail siding and the location of the elevator on the siding. Thus, while a siding may be able to accommodate twenty boxcars, perhaps only five or six cars can be loaded ready for collection by a train at one call. The number of car-lengths between the elevator spout and the neighbouring elevator company's spout or the ends of the siding is crucial.

Data for each delivery point and each elevator company are given in Table 36. Generally the number of boxcars per delivery point increases with the size of community, but considerable variation exists. The range is from 1 at Bratton to 69 at Rosetown.

Again using Bratton and Witley as examples, Bratton required 10 box-cars to move a one bushel quota (Table 35) but is able to load only 1 boxcar in one shunt. Witley needed 5 boxcars to move a one bushel quota and can load as many as 9 boxcars per shunt. Clearly, Witley has the advantage.

TABLE 36. MAXIMUM NUMBER OF BOXCARS PER SHUNT THAT CAN BE LOADED BY DELIVERY POINT AND ELEVATOR COMPANY, 1969-70

	Number of			Number of Boxcars per
Delivery Point	Boxcars per Point		Elevator Companies	Elevator Co.
	: £			
Too Small to Class	10	C.P.	Saskatchewan Wheat Pool	10
Gaines	12	C.P.		12
Mondou	4	C.N.		4
Inglenook Penkill	10	C.P.		10
Sandgren	8	C.N.		8
Witley	9	C.N.		9
Fortune	15	C.P.		15
Juniper	10	C.N.	_	10
Tichfield	10	C.N.		10
Anerley	22	C.N.		8
Aller Tey	22	C.N.		14
Matador	18	C.P.		18
Ridpath	14	C.N.		8
κταρατη	17	C.N.		6
Thrasher	9	C.P.		6 4 5 4 5
THI USITED	,	C.P.		5
Gunnworth	9	C.P.		4
dailiwoi en		C.P.		5
Totnes	16	C.P.		4
Totales		C.P.		12
Beadle	12		Federal Grain Ltd.	8
Dedute		C.N.		4
Hamlets				
Leach Siding	8	C.N.	Saskatchewan Wheat Pool	4
Leach Staring	Ŭ	C.N.	United Grain Growers Ltd.	4
McMorran	14	C.P.		7
richor i an	• • •	C.P.	United Grain Growers Ltd.	7 7
Bratton	1	C.N.	Saskatchewan Wheat Pool	1
Glamis	16	C.P.	Federal Grain Ltd.	11
Granits		C.P.	Saskatchewan Wheat Pool	5
Tuberose	16	C.P.	Saskatchewan Wheat Pool	16
Bickleigh	15	C.P.	Saskatchewan Wheat Pool	7
Brokreign		C.P.	United Grain Growers Ltd.	8
Snipe Lake	24	C.N.	Pioneer Grain Co. Ltd.	10
on pe Lake		C.N.	Saskatchewan Wheat Pool	7
		C.N.	United Grain Growers Ltd.	7 7
Greenan	8	C.N.	Saskatchewan Wheat Pool	8
Isham	14	C.N.	Federal Grain Ltd.	4
1 J Hum	• •	C.N.	Pioneer Grain Co. Ltd.	5
		C.N.	Saskatchewan Wheat Pool	5

TABLE 36. MAXIMUM NUMBER OF BOXCARS PER SHUNT THAT CAN BE LOADED BY DELIVERY POINT AND ELEVATOR COMPANY, 1969-70 (continued)

Delivery Point	Number of Boxcars per Point	Elevator Companies	Number of Boxcars per Elevator Co.
McGee Sanctuary	16 15	C.N. Saskatchewan Wheat Po C.P. Pioneer Grain Co. Ltd C.P. Saskatchewan Wheat Po	. 5
Tyner	24	C.P. Saskatchewan Wheat Po C.N. Federal Grain Ltd. C.N. Pioneer Grain Co. Ltd C.N. Saskatchewan Wheat Po	. 8
Richlea	18	C.N. Pioneer Grain Co. Ltd C.N. Saskatchewan Wheat Po C.N. United Grain Growers	. 10
Wartime	29 C N	C.N. Federal Grain Ltd. /C.P. Saskatchewan Wheat Po	7
Forgan	27	C.N. Pioneer Grain Co. Ltd C.N. Saskatchewan Wheat Po C.N. United Grain Growers	18
D'Arcy	16	C.N. Federal Grain Ltd. C.N. Saskatchewan Wheat Po	8
Villages			
Bounty	9	C.P. National Grain Co. Lt C.P. Saskatchewan Wheat Po	
Hughton	22	C.N. Federal Grain Ltd. C.N. Pioneer Grain Co. Ltc C.N. Saskatchewan Wheat Po	9 4
Glidden	16	C.N. Federal Grain Ltd. C.N. Pioneer Grain Co. Ltd C.N. Saskatchewan Wheat Po	8 1. 4
Netherhill	16	C.N. National Grain Co. Lt C.N. Pioneer Grain Co. Lt C.N. Saskatchewan Wheat Po	td. 4 1. 8
Madison	32	C.N. Pioneer Grain Co. Ltc C.N. Saskatchewan Wheat Po C.N. United Grain Growers	1. 12 001 9
Fiske	10	C.N. Pioneer Grain Co. Ltd	5
Macrorie Plato	8 22	C.N. Saskatchewan Wheat Po C.N. Saskatchewan Wheat Po C.N. Federal Grain Ltd. C.N. Saskatchewan Wheat Po	001 8 14
White Bear	20	C.N. Pioneer Grain Co. Ltd	d. 10
Stewart Valley	22	C.N. Saskatchewan Wheat Po C.P. Pioneer Grain Co. Ltc C.P. Saskatchewan Wheat Po C.P. United Grain Growers	d. 4 pol 4

TABLE 36. MAXIMUM NUMBER OF BOXCARS PER SHUNT THAT CAN BE LOADED BY DELIVERY POINT AND ELEVATOR COMPANY, 1969-70 (concluded)

Delivery Point	Number of Boxcars per Point		Elevator Companies	Number of Boxcars per Elevator Co.
Lacadena	21	C.N.	Pioneer Grain Co. Ltd.	16
Sovereign	25	C.N. C.P. C.P.	Pioneer Grain Co. Ltd.	5 10 7
Wiseton	35	C.P. C.N.	Saskatchewan Wheat Pool Federal Grain Ltd. Saskatchewan Wheat Pool	8 7 16
Brock	21	C.N. C.N. C.N.	National Grain Co. Ltd. Saskatchewan Wheat Pool	12 5 10 6
Towns				
Milden	21	C.P.	Pioneer Grain Co. Ltd.	4 8
Dinsmore	27	C.P. C.N. C.N.	Saskatchewan Wheat Pool Federal Grain Ltd. Pioneer Grain Co. Ltd. Saskatchewan Wheat Pool	9 4 10 10
Elrose	20	C.N. C.N. C.N.	United Grain Growers Ltd. Federal Grain Ltd. Saskatchewan Wheat Pool United Grain Growers Ltd.	3 4 5 11
Ку1е	23	C.P. C.P. C.P.	Federal Grain Ltd. Pioneer Grain Co. Ltd. Saskatchewan Wheat Pool	5 7 9
Greater Towns				
Eston	17	C.N. C.N. C.N.		4 7 3 3
Rosetown	C.N	./C.P. ./C.P. ./C.P.	Federal Grain Ltd. Pioneer Grain Co. Ltd. Saskatchewan Wheat Pool	13 28 24
Kindersley	31	C.N.	United Grain Growers Ltd. Federal Grain Ltd. Pioneer Grain Co. Ltd. Saskatchewan Wheat Pool	4 9 9 13

Source: Canadian Grain Commission, Winnipeg.

# Block Loading System for Grain

The beginning of the 1969-70 crop year was the start of a new system of issuing shipping orders and allocating boxcars, known as the Canadian Wheat Board Block Loading System. The "blocks" are comprised of the grain delivery points situated on specified groups of contiguous railway subdivisions, with those of one railway company being kept separate from the other.

Improved communication between the Board and the elevator operators allows the Board to know the quantities of each kind and grade of grain available for forwarding from each point, and thus from each block. The Board accordingly is able to issue shipping orders to the grain companies represented in each block, and the companies can then allocate boxcars to their elevators in the block to ship the correct kind and grade of grain the Wheat Board needs in forward positions.

Table 37 lists the delivery points in the study area, grouped in their respective loading blocks. Also shown are the names of the railway subdivisions and the number of cars that can be loaded at one time at each point.

TABLE 37. BLOCK LOADING SYSTEM FOR GRAIN IN THE STUDY AREA

Shipping Block &	Railway	Number of Boxcars
Delivery Points	Subdivision	Per Point
7 1 7 1 7 1 7 10 /0	87 <b>)</b>	
Saskatoon South Block No. 19 (C.	Elrose	22
Anerley		1
Bratton	Conquest Elrose	27
Dinsmore	Elrose	20
Elrose	Elrose	17
Eston	Elrose	27
Forgan	Elrose	8
Greenan	Elrose	22
Hughton	Elrose	10
Juniper Leach Siding	Elrose	8
Macrorie	Conquest	8
Plato	Elrose	22
Richlea	Elrose	18
Surbiton	Elrose	-
Tichfield	Conquest	10
Wartime	Elrose and	
Nat Cline	Matador (C.P	.) 29
Wiseton	Elrose	35
Saskatoon West Block No. 21 (C.N.		12
Beadle	Rosetown	21
Brock	Rosetown	16
D'Arcy	Rosetown	10
Fiske	Rosetown Elrose	16
Glidden	Elrose	4
Inglenook	White Bear	14
Isham	Rosetown	31
Kindersley	White Bear	21
Lacadena	Elrose	32
Madison	Rosetown	16
McGee Netherhill	Rosetown	16
	Rosetown	_
Pym Ridpath	Rosetown	14
Rosetown	Rosetown	69
Saltburn	White Bear	_
Sandgren	Elrose	8
Snipe Lake	Elrose	24
Tyner	White Bear	24
Verendrye	Elrose	-
White Bear	White Bear	20
Witley	White Bear	9

TABLE 37. BLOCK LOADING SYSTEM FOR GRAIN IN THE STUDY AREA (concluded)

Shipping Block & Delivery Points	Railway Subdivision	Number of Boxcars Per Point
Derivery Fornics	300017131011	161 101110
Outlook Block No. 79 (C.P.)		
Bickleigh	McMorran	15
Bounty	Kerrobert	9
Chipperfield	McMorran	
Fortune	Kerrobert	15
Gaines	McMorran	10
Glamis	McMorran	16
Gunnworth	McMorran	9
Kyle	Matador	23
Lille	Matador	_
Matador	Matador	18
McMorran	McMorran	14
Milden	Kerrobert	21
Mondou	Matador	12
Penkill	McMorran	10
Rosetown	Kerrobert	69
Sanctuary	Matador	15
Sovereign	Kerrobert	25
Thrasher	McMorran	9
Totnes	McMorran	16
Tuberose	Matador	16
Wartime	Matador and	10
war crine	Elrose (C.N.)	29
	L11036 (0.11.)	23
Swift Current Block No. 78 (C.P.)		
Stewart Valley	Stewart Valley	22

Source: Canadian Grain Commission, Winnipeg.

## Farm Trucks

Table 38 presents estimates of the number and size distribution of farm trucks registered in the Eston-Elrose region in 1966-67. Truck sizes are expressed in terms of gross vehicle weight (GVW) rather than in terms of ton capacities because the latter designations are too ambiguous. Ton capacities corresponding to the GVW groups shown would range from one-half ton in the 0-5,999 pound group to 3 and 4 tons in the upper end of the scale.

The average number of trucks per census farm in 1966 in census divisions 7, 12 and 13 was applied to the total number of permit holders in the study area during 1966-67 (Table 27). The number of trucks per farm in the census divisions was 1.45 and there were 3,040 permit holders, resulting in an estimated 4,408 farm trucks in the study area. Percentage estimates of distribution by size, obtained from the Canadian Transport Commission, were then applied to the total number of trucks to arrive at the number of trucks within each GVW group.

Over one quarter of the trucks were within the smallest size group (i.e. one-half ton trucks) and about 12 per cent in the next largest group or "small" one ton trucks. The second largest number of trucks belonged to the 10,000 - 11,999 GVW group, corresponding to larger one ton and two ton truck sizes.

TABLE 38. ESTIMATED NUMBER OF FARM TRUCKS BY SIZE IN THE STUDY AREA, 1966-67

Size of Truck	Estimated Number	
(Gross Vehicle Weight)	of Trucks	Per Cent
0 - 5,999 6,000 - 7,999 8,000 - 9,999 10,000 - 11,999 12,000 - 13,999 14,000 - 15,999 16,000 - 17,999 18,000 - 19,999 20,000 - 23,999	1,252 533 26 573 216 251 106 243 458 419	28.4 12.1 0.6 13.0 4.9 5.7 2.4 5.5 10.4 9.5
24,000 - 27,999 28,000 and over	331	7.5
Study Area Total	4,408	100.0

Source: Calculated from data obtained from the Agriculture Census of Canada, 1966 and the Canadian Transport Commission, Ottawa.

## Farm to Elevator Hauling Distances: Prediversion

Tributary areas from which grain delivery points draw grain from producers were plotted for the crop years 1962-63 and 1969-70 as shown in Figures 4 and 5. Each quarter section, as recorded in individual Canadian Wheat Board permit books, was plotted producing a graphic portrayal of the relative sizes and shapes of hinterlands. Naturally, unimproved farm land is included by this method of plotting. Excluded are crown land, waste land, bodies of water and farm land tributary to delivery points outside the study area.

Table 39 is a comparison of farm to elevator grain hauling distances between the two crop years. In one sense, average hauling distance is also a measure of geographic size of a hinterland, since hauling distances generally increase as more acres are added to a hinterland. The data were derived from 1962-63 and 1969-70 hinterland maps (Figures 4 and 5) by measuring the grid distance between the delivery point and the midpoint of each section block. The delivery point was always taken as being located at one corner of a section resulting in a minimum distance of 1.0 mile and all subsequent distances as 1.0 plus 1, 2 or 3 miles, etc., to the outer extreme of the hinterland.

The average distance each quarter section is located from its delivery point was calculated as follows: the distance of each section, as derived above, was weighted or multiplied by the relevant number of quarter sections within that section, the products of which were accumulated; and the sum then divided through by the total number of quarter sections in the hinterland. So one might say the resulting average is the average distance each section is from the delivery point weighted by the number of relevant quarter sections.

As an estimate of farm to elevator hauling distances this method may be criticized for not taking into account actual locations of on-farm, grain storage facilities nor the availability of roads. These criticisms may not be too serious, however, since grain is first hauled from the farm field to the farm granary and then to the country elevator at a later date. In effect, therefore, the hauling activity originates from each quarter section. It is difficult to know the magnitude of the error introduced by ignoring roads. The seriousness of the error will be greater for a hinterland with fewer roads than for a hinterland with a well developed network of roads. To the extent that there is a bias introduced by ignoring roads the method used, conceivably, under-estimates hauling distances.

The average hauling distance in the study area in 1969-70 was 6.53 miles, slightly higher than the 1962-63 average of 6.16 miles. The maximum distance increased 1.0 mile from 27.0 (Dinsmore) to 28.0 miles (Rosetown).

 $<sup>^{1}\</sup>mathrm{A}$  "relevant" quarter section is one which was recorded in someone's delivery permit book and which was contained in the hinterland of the delivery point in question.

The minimum high was only 4.0 miles at Lille in 1962-63 and 7.0 miles at Gaines, Penkill and Witley in 1969-70.

The largest hinterland in terms of average hauling distance in both crop years was Dinsmore which had an average distance of over 10 miles. Surbiton in 1962-63 and Witley in 1969-70 had the smallest hinterland, each with an average distance of 2.75 miles.

Changes in average hauling distances between the two crop years were small. Only 7 delivery points in the entire study area showed distance changes of more than one mile. The largest decline in hauling distance occurred at Forgan (-1.84 miles) and the largest increase occurred at Kindersley (1.79 miles). Again, a greater proportion of smaller centers experienced decreased hauling distances than larger centers.

TABLE 39. FARM TO ELEVATOR HAULING DISTANCES BY DELIVERY POINT, 1962-63 AND 1969-70

		52-63		9-70	Change in Average 1962-63 to 1969-70
Delivery Point	Higha	Average	Higha	Average	1909-70
			- mile	s <b>-</b>	
Too Small to Class	ify				
Surbiton	7.0	2.75	Storag		-
Glen Payne	7.0	3.30	Clos		-
Saltburn	9.0	3.77	Clos	ed	-
Lille	4.0	2.59	Storag		-
Chipperfield	10.0	3.77	Storag		-
Verendrye	8.0	3.30	Storag		-
Gaines	6.0	2.83	7.0	2.96	+0.13
Mondou	7.0	3.63	8.0	3.87	+0.24
Inglenook	10.0	3.57	11.0	3.64	+0.07
Penkill	6.0	2.93	7.0	2.80	-0.13
Sandgren	9.0	4.12	11.0	3.99	-0.13
Witley	15.0	4.28	7.0	2.75	-1.53
Fortune	8.0	3.74	9.0	3.43	-0.31
Juniper	16.0	7.36	14.0	6.54	-0.82
Tichfield	11.0	4.49	10.0	4.56	+0.07
Anerley	14.0	5.27	12.0	5.11	-0.16
Matador	13.0	5.97	13.0	5.52	-0.45
Ridpath	13.0	4.49	8.0	3.58	-0.91
Thrasher	12.0	3.93	10.0	4.68	+0.75
Gunnworth	8.0	3.52	8.0	3.31	-0.21
Totnes	8.0	3.35	8.0	3.65	+0.30
Beadle	14.0	5.28	12.0	6.02	+0.74
Hamlets					
Leach Siding	13.0	4.40	18.0	4.97	+0.57
McMorran	12.0	4.99	11.0	4.11	-0.88

See footnotes at end of table

TABLE 39. FARM TO ELEVATOR HAULING DISTANCES BY DELIVERY POINT, 1962-63 AND 1969-70 (concluded)

		52-63	106	 59-70	Change in Average 1962-63 to
Delivery Point	Higha	Average	Higha	Average	1969-70
			- mile	es -	
Bratton Glamis Tuberose Bickleigh Snipe Lake Greenan Isham McGee Sanctuary Tyner Richlea Wartime Forgan D'Arcy	9.0 9.0 10.0 10.0 16.0 9.0 18.0 11.0 13.0 10.0 12.0 9.0 19.0	3.17 4.27 3.86 3.44 6.43 3.60 5.82 4.80 5.61 4.23 5.19 4.19 8.83 5.93	10.0 8.0 10.0 8.0 17.0 9.0 17.0 11.0 14.0 11.0 13.0 12.0 21.0	3.67 3.68 4.02 3.69 7.05 3.96 4.67 4.26 5.99 4.78 5.49 4.59 6.99 6.09	+0.50 -0.59 +0.16 +0.25 +0.62 +0.36 -1.15 -0.54 +0.38 +0.55 +0.30 +0.40 -1.84 +0.16
Villages Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Bear Stewart Valley Lacadena Sovereign Wiseton Brock	13.0 18.0 18.0 11.0 16.0 12.0 13.0 17.0 17.0 15.0 10.0 18.0	5.36 6.13 7.59 5.47 5.81 5.44 4.41 5.02 7.80 6.89 5.91 4.45 7.53 7.30	12.0 13.0 20.0 13.0 12.0 17.0 15.0 17.0 18.0 16.0 13.0 19.0	4.64 6.57 8.33 5.44 5.59 6.11 4.59 5.77 7.46 5.19 6.05 4.85 7.94 7.48	-0.72 +0.44 +0.74 -0.03 -0.22 +0.67 +0.18 +0.75 -0.34 -1.70 +0.14 +0.40 +0.41 +0.41
Towns Milden Dinsmore Elrose Kyle	17.0 27.0 18.0 17.0	6.56 10.54 5.70 7.29	24.0	5.92 11.65 6.51 7.31	-0.64 +1.11 +0.81 +0.02
Greater Towns Eston Rosetown Kindersley	21.0 25.0 17.0	7.34 8.62 7.12	18.0 28.0 24.0	7.38 9.63 8.91	+0.04 +1.01 +1.79
Total Study Area	27.0	6.16	28.0	6.53	+0.37

aThe minimum distance in all cases was assumed to be 1.0 mile; thus, the range in distances for each hinterland is the high minus 1.0 mile.

### PART IV

### RATIONALIZATION OF GRAIN DELIVERY POINTS

The preceding parts have dealt with community attributes, agricultural characteristics, and grain marketing and handling characteristics in the study area. This last part attempts to show what changes might be expected if some of the delivery points closed. "Rationalizing" delivery points in this manner is a hypothetical exercise and as such cannot be construed as a set of recommendations nor as a set of definitive adjustments that will in actual fact occur. Justification for the exercise may be found in the fact that, firstly, the probable directions of change are outlined and, secondly, estimates are made of the magnitudes of supposed changes.

For purposes of this study the delivery points on the following branch lines were assumed to be closed: (see Figures 5 and 6) Kindersley to Glidden; Eston to White Bear; McMorran to Milden; and Gunnworth to Matador. Twenty-three points were thus assumed closed, including Lille, Chipperfield and Verendrye which were already being used for storage only in 1969-70. An additional four points on other rail lines were also closed or closed for storage leaving 33 delivery points open. Of the latter, 17 points were affected by additional grain receipts after rationalization and 16 were unaffected.

Figure 6 was derived from 1969-70 hinterlands by a process of diverting each quarter section from those points assumed closed to probable alternate delivery points assumed to be remaining open. While an element of subjective judgement was involved the following criteria served as guides for selecting the most probable alternate delivery point for each quarter section: (1) shortest hauling distance; (2) road conditions; and (3) size of community and number of services present at each alternate delivery point. These criteria are listed in descending order of importance, although, in some instances the second took precedence over the first. The third criterion was given only minor importance.

Probable Diversions to Alternate Delivery Points from Delivery Points Assumed Closed

Tables 40 and 41 show the probable diversions that would occur in terms of acres, bushels and hauling distances after specified points were assumed closed. To begin with, in Table 40 percentage distribution figures were determined on the basis of number of quarter sections diverted to each alternate delivery point. For example, all of Mondou was diverted to Elrose, therefore, Elrose obtained 100 per cent of Mondou's farm acreage. A further example, of the total number of quarters in Inglenook hinterland, 14.3 per cent were diverted to Glidden and 85.7 per cent to Kindersley. Total farm acreage at Inglenook in 1969-70 was 11,290 (Table 19), thus,

1,614 acres went to Glidden and 9,676 acres to Kindersley. In total for the study area, 611,921 acres were diverted representing 24.8 per cent of the nearly 2.5 million-acre total.

The quarter section percentage distribution was also the basis on which bushel diversion estimates were made. Again using Inglenook to illustrate, in 1969-70 it had grain receipts of 96,353 bushels, 14.3 per cent of which were assumed to go to Glidden and 85.7 per cent to Kindersley. Since annual receipts fluctuate considerably and since 1969-70 may not have been a representative year, bushel diversions based on the ten-year average, 1960-61 to 1969-70 were similarly calculated. Had the 20 points specified in Table 40 been closed in 1969-70, an estimated total of 4.8 million bushels would have been diverted to alternate delivery points compared to a ten-year average of 5.3 million bushels.

The average additional haul shown by the last column in Table 40 was derived as follows: the average distance each quarter section in the hinterland being diverted was situated from its alternate delivery point, was calculated employing the same method used for Table 39; from this value, the prediversion average hauling distance of the point being closed was subtracted, resulting in the postdiversion additional hauling distance. This means that whereas producers previously travelled an average of 3.64 miles to Inglenook (Table 39), after Inglenook closed they would have to travel, on the average, an additional 5.37 miles to Glidden or Kindersley or 9.01 miles in total.

Additional hauling distances ranged from 2.71 miles for farmers at Sandgren to 18.58 miles for farmers at Tuberose.

Acreage and bushel diversions shown in Table 41 were derived from Table 40. Table 41 simply lists the 17 affected points remaining open and the amounts of acreage and grain receipts each received from those points closing. Unlike Table 40, the percentage distribution values in Table 41 were computed from the acreage diversion data, not vice versa.

Average additional haul represents the increased average hauling distance of all producers after diversion as a result of the new, larger hinterlands illustrated in Figure 6. This information was simply reproduced from Table 42.

PROBABLE DIVERSIONS TO ALTERNATE DELIVERY POINTS: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 TABLE 40.

Delivery Point Closed to Alternate Delivery Point	Per Cent Distribution	Acres Diverted 1969-70	1969-70	Bushels Diverted Ten-Year Average 1960-61 to 1969-70	Average Additional Haul
		acres		- bushels -	- miles -
Too Small to Classify Gaines to: Sovereign Milden Wiseton Total	36.8 10.6 52.6 100.0	4,312 1,241 6,163 11,716	34,073 9,815 48,703 92,591	45,961 13,239 65,695 124,895	4.01
Mondou to: Elrose Total	100.0	13,491	108,365	109,327 109,327	7.23
Inglenook to: Glidden Kindersley Total	14.3 85.7 100.0	1,614 9,676 11,290	13,778 82,575 96,353	18,307 109,708 128,015	5.37
Penkill to: D'Arcy Brock Richlea Total	10.3 15.2 74.5 100.0	982 1,449 7,103 9,534	2,658 3,923 19,225 25,806	14,888 21,969 107,679 144,536	7.08
Sandgren to: Kindersley Glidden Total	28.0 72.0 100.0	4,225 10,863 15,088	33,979 87,374 121,353	39,212 100,830 140,042	2.71
Witley to: Richlea Eston Total	28.1 71.9 100.0	2,606 6,668 9,274	24,471 62,613 87,084	40,243 102,968 143,211	3.21
					(continued)

PROBABLE DIVERSIONS TO ALTERNATE DELIVERY POINTS: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (continued) TABLE 40.

Average age Additional 9-70 Haul	- miles -	68.6	18.30	7.24	5.58	6.31
Bushels Diverted Ten-Year Avera	- bushels -	230,669	55,759 169,987 225,746	38,733 97,169 135,902	3,288 37,115 61,113 101,517 203,033	15,788 36,758 108,388 153,234 314,168
1969-70		212,809	43,608 132,941 176,549	35,391 88,785 124,176	2,778 31,774 52,261 86,813 173,626	12,123 27,812 82,010 115,764 237,709
Acres Diverted 1969-70	- acres -	26,676	5,774 17,602 23,376	4,706 11,808 16,514	364 4,166 6,853 11,384 22,767	1,318 3,023 8,915 12,585 25,841
Per Cent Distribution		100.0	24.7 75.3 100.0	28.5 71.5 100.0	1.6 18.3 30.1 50.0 100.0	5.1 11.7 34.5 48.7 100.0
Delivery Point Closed to Alternate Delivery Point		Matador to: Stewart Valley Total	Thrasher to: Elrose Rosetown Total	Gunnworth to: Elrose Wartime Total	Totnes to: Brock Plato Richlea D'Arcy Total	Hamlets McMorran to: Richlea Netherhill Brock Eston Total

PROBABLE DIVERSIONS TO ALTERNATE DELIVERY POINTS: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (continued) TABLE 40.

1,256			Acres Diverted	Bu	Diverted	Average
- acres bushels miles   17,967    15.2	Delivery Point Closed to Alternate Delivery Point	Per Cent Distribution	7-696	7-696	len-Year Average 960-61 to 1969-7	Haul
5.2 1,256 11,858 17,967 32,480 15.9 69.5 16,796 15.9 16,796 15.9 16,796 15,8487 240,445 160.0 27,901 201,584 215,296 100.0 27,901 201,584 215,296 100.0 27,901 201,584 215,296 100.0 27,901 201,584 215,296 100.0 27,901 201,584 215,296 100.0 27,4 113,080 173,654 113,080 173,654 100.0 27,4 11,627 112,980 101,219 65.7 4 21,436 451,284 373,451 111 100.0 55,342 451,284 373,451 111 100.0 55,342 451,284 373,451 111 113,880 11,345 27,881 8.0 3,716 32,418 405,164 348,135 77			acres		pn	miles
to: 100.0 27,901 201,584 215,296 18  to: 15.5 2,914 20,743 31,854 215,296 18  4.5 15,889 113,080 173,654 6  100.0 12,929 28,451 25,489 27,74 27,880 270,995 244,703 655,342 412,336 369,411 66  to: 100.0 55,342 451,284 373,451 11 100.0 55,342 451,284 373,451 11 11 89.2 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	Glamis to: Rosetown Wiseton Sovereign Forgan	5.2 9.4 15.9 69.5 0.001	1,25 2,27 3,84 6,79 4,16	11,858 21,436 36,258 158,487 228,039	7,96 2,48 4,94 0,14 5,53	5.00
to: 15.5 2.914 20,743 31,854 84.5 15,889 113,080 173,654 100.0 18,803 133,823 205,508 6 27.4 11,627 112,980 101,219 27,880 270,905 242,03 100.0 55,342 451,284 373,451 1100.0 55,342 451,284 373,451 111,345 8.0 3,716 32,413 27,851 80.5 100.0 46,448 405,164 348,135 7	p-man	100.0	6,7	01,58 01,58	5,29	0
6.9 2,929 28,451 25,489 101,219 27.4 27,880 270,905 242,703 242,703 242,703 242,703 242,703 242,436 412,336 369,411 100.0 55,342 451,284 373,451 11,300 11,345 8.0 3,716 32,413 27,851 89.2 41,432 361,406 310,536 100.0 46,448 405,164 348,135	<u> </u>	15.5 84.5 100.0	2,50 2,88 08,80	,74 ,08 ,82	യ്ര്സ്	6.16
to: 100.0 55,342 451,284 373,451 11 100.0 55,342 451,284 373,451 11 2.8 1,300 11,345 9,748 8.0 3,716 32,413 27,851 89.2 41,432 361,406 310,536 100.0 46,448 405,164 348,135	Isham to: Plato Eston Richlea	6.9 27.4 65.7 100.0	2,929 11,627 27,880 42,436	28,451 112,980 270,905 412,336	25,489 101,219 242,703 369,411	•
2.8 1,300 11,345 9,748 8.0 3,716 32,413 27,851 89.2 41,432 361,406 310,536 100.0 46,448 405,164 348,135		100.0	5,34	<b>51</b> ,28	3,45	11.06
	Tyner to: Elrose Richlea Plato Total	2.8 8.0 89.2 100.0	1,300 3,716 41,432 46,448	32,4 61,4 61,4	9,748 27,851 310,536 348,135	7.68

PROBABLE DIVERSIONS TO ALTERNATE DELIVERY POINTS: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (concluded) TABLE 40.

+ 4000000000000000000000000000000000000	Dow	Acres Diverted	Bush	Bushels Diverted Ten-Year Average	Average
Alternate Delivery Point	Distribution	1969-70	1969-70	ווח	Haul
		- acres -	1	bushels -	- miles -
Villages White Bear to: Elrose Plato Stewart Valley	21.3 36.8 41.9	16,107 27,829 31,685	125,721 217,208 247,311	127,941 221,045 251,679	20.47
10ta1	0.001	130667	0,000		
Lacadena to: Elrose Plato Total	13.8 86.2 100.0	8,258 51,586 59,844	52,289 326,619 378,908	53,349 333,236 386,585	14.19
Towns Kyle to: Elrose Stewart Valley Total	20.0 80.0 100.0	23,158 52,634 75,792	113,660 454,640 568,300	127,432 509,725 637,157	15.93
Study Area Total		611,921	4,826,099	5,326,171	

PROBABLE DIVERSIONS FROM DELIVERY POINTS ASSUMED CLOSED: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 TABLE 41.

		Acres Diverted	Bu	verte	Average
Alternate Delivery Point from Points Closed	Per Cent Distribution	1969-70	1969-70	len-Year Average 1960-61 to 1969-70	Haul
		- acres -		- bushels -	- miles -
Hamlets Richlea from: Tyner Isham Witley McMorran	7.5 56.4 5.3 3.5	3,716 27,880 2,606 1,318 7,103	32,413 270,905 24,471 12,123 19,225	27,851 242,703 40,243 15,788 107,679	
Totnes Total	13.9	6,853 49,476	52,261 411,398	61,113 495,377	7.16
Wartime from: Gunnworth Total	100.0	11,808	88,785	97,169	0.90
Forgan from: Glamis Total	100.0	16,796	158,487	240,145 240,145	0.32
D'Arcy from: Penkill Totnes Total	7.9 92.1 100.0	982 11,384 12,366	2,658 86,813 89,471	14,888 101,517 116,405	0.51
<i>Villages</i> Glidden from: Inglenook Sandgren Total	12.9 87.1 100.0	1,614 10,863 12,477	13,778 87,374 101,152	18,307 100,830 119,137	-0.70
Netherhill from: McMorran Total	100.0	3,023	27,812	36,758	0.24
					(continued)

PROBABLE DIVERSIONS FROM DELIVERY POINTS ASSUMED CLOSED: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (continued) TABLE 41.

		Acres Diverted	BI	s Diverted	age
Alternate Delivery Point from Points Closed	Per Cent Distribution	1969-70	1969-70	len-Year Average 1960-61 to 1969-70	Addıtıonal Haul
		acres		- bushels -	- miles -
Fiske from: Bickleigh Total	100.0	2,914 2,914	20,743	31,854	0.18
Plato from: Lacadena White Bear Tyner Isham	35.9 19.3 28.8 2.1	51,586 27,829 41,432 2,929	326,619 217,208 361,406 28,451	333,236 221,045 310,536 25,489	
Totnes Bickleigh Total	2.9 11.0 100.0	10 m m	31,774 113,080 1,078,538	,65 ,07	8.44
Stewart Valley from: Kyle White Bear Matador Total	47.4 28.5 24.1 100.0	52,634 31,685 26,676 110,995	454,640 247,311 212,809 914,760	509,725 251,679 230,669 992,073	10.85
Sovereign from: Glamis Gaines Total	47.1 52.9 100.0	3,843 4,312 8,155	36,258 34,073 70,331	54,940 45,961 100,901	0.46
Wiseton from: Glamis Gaines Total	26.9 73.1 100.0	2,272 6,163 8,435	21,436 48,703 70,139	32,480 65,695 98,175	-0.03

PROBABLE DIVERSIONS FROM DELIVERY POINTS ASSUMED CLOSED: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (continued) TABLE 41.

		Acres Diverted	Bu	s Diver	Average
Alternate Delivery Point from Points Closed	Per Cent Distribution	1969-70	1969-70	Ten-Year Average 1960-61 to 1969-70	Additional Haul
		- acres -		- bushels -	- miles -
Brock from: McMorran Penkill Totnes Total	83.1 13.5 3.4 100.0	8,915 1,449 364 10,728	82,010 3,923 2,778 88,711	108,388 21,969 3,288 133,645	0.15
Towns Milden from: Gaines Total	100.0	1,241	9,815	13,239	0.03
Elrose from: Mondou Kyle Sanctuary Lacadena Tuberose White Bear Tyner Thrasher Gunnworth	8.6 14.8 35.5 10.3 3.9 100.0	13,491 23,158 55,342 8,258 27,901 16,107 1,300 5,774 4,706	108,365 113,660 451,284 52,289 201,584 125,721 11,345 43,608 35,391	109,327 127,432 373,451 53,349 215,296 127,941 9,748 55,759 38,733	8° 3° 8°
Greater Towns Eston from: Isham Witley McMorran Total	37.7 21.5 40.8 100.0	11,627 6,668 12,585 30,880	112,980 62,613 115,764 291,357	101,21 <b>9</b> 102,968 153,234 357,421	0.92

PROBABLE DIVERSIONS FROM DELIVERY POINTS ASSUMED CLOSED: ACREAGE, BUSHELS AND HAULING DISTANCE, BASIS 1969-70 (concluded) TABLE 41.

		Acres Diverted	B	Bushels Diverted	Average
Alternate Delivery Point from Points Closed	Per Cent Distribution	1969-70	1969-70	Ten-Year Average 1960-61 to 1969-70	Additional Haul
		- acres -		- bushels -	- miles -
Rosetown from: Glamis Thrasher Total	6.7 93.3 100.0	1,256 17,602 18,858	11,858 132,941 144,799	17,967 169,987 187,954	1.94
Kindersley from: Inglenook Sandgren Total	69.6 30.4 100.0	9,676 4,225 13,901	82,575 33,979 116,554	109,708 39,212 148,920	0.11
Study Area Total		611,921	4,826,099	5,326,171	2.86



# Farm to Elevator Hauling Distances: Postdiversion

Comparisons of hauling distances before and after diversion are presented in Table 42. For the study area as a whole, average farm to elevator hauling distances increased by 2.86 miles, from 6.53 to 9.39 miles. Prior to diversion, the smallest hinterland in terms of average hauling distance was Witley (2.75) and the largest Dinsmore (11.65). Of those delivery points open after diversion, the smallest hinterland was Fortune (3.43), which did not gain any acreage, and the largest Stewart Valley (16.04).

The majority of-average distance changes after diversion were small (i.e. less than one mile) but the following four points showed increases of approximately 7 to 10 miles: Richlea, Plato, Stewart Valley and Elrose. Again, Stewart Valley increased more than any other point, with an additional 10.85 miles of haul. It should be noted that all acreage gained by Stewart Valley was diverted from Kyle, White Bear and Matador north of the South Saskatchewan River, based on the assumption that grain producers would travel via Highway No. 4. The farthest hauling distance was estimated to be 34.0 miles.

<sup>&</sup>lt;sup>1</sup>The fact that average hauling distances at Glidden and Wiseton actually decreased slightly after diversion can be explained by the location of the acreages added in relation to the shape of each of the hinterlands. Much of the Glidden hinterland, for instance, extends quite far south (Figure 5) and the acreage added was located at the north end, closer to the village of Glidden (Figure 6). Since average hauling distance is an average weighted by the number of quarter sections (see discussion of Table 39), adding more quarter sections close to the delivery point results in pulling the average downward.

(continued) Difference in Average Before and After Diversion n/c n/c n/c n/c n/c n/c ı 1 1 1 1 Average After Diversion 7.05 3.43 6.54 4.56 5.11 6.02 3.58 4.97 3.67 1969-70 - miles High 17.0 12.0 9.0 .00 18.0 10.0 Average Before Diversion 4.97 4.11 3.67 3.68 4.02 4.02 3.69 7.05 1969-70 7.00.01 10.00 10.0 18.0 10.0 10.0 10.0 10.0 10.0 High Too Small to Classify Leach Siding Bickleigh<sup>a</sup> Snipe Lake Delivery Point Inglenook<sup>a</sup> Penkill<sup>a</sup> Gunnwortha Ridpath Thrasher<sup>a</sup> McMorrana Tuberosea Sandgrena Tichfield Anerley Matador<sup>a</sup> Bratton Glamis<sup>a</sup> Greenan Juniper Totnes<sup>a</sup> Mondoua Witleya Fortune Gainesa Beadle Hamlets

FARM TO ELEVATOR HAULING DISTANCES BY DELIVERY POINT, BEFORE AND AFTER DIVERSION, BASIS 1969-70

TABLE 42

table See footnotes at end of

FARM TO ELEVATOR HAULING DISTANCES BY DELIVERY POINT, BEFORE AND AFTER DIVERSION, BASIS 1969-70 (continued) TABLE 42.

	Before	Diversion	After D	After Diversion	Difference in Average
Delivery Point		ו ות	High	Average	Diversion
			_ m_	îles -	
Isham <sup>a</sup>		9			1.5
McGee		2	11.0	4.26	n/c
Sanctuarya	14.0	5.99	ı	ı	1
Tynera		~	1		i r
Richlea		4	27.0	9.	47.16
Wartime		2	15.0	4.	0.00+
Forgan		0	21.0	7.31	+0.32
D'Arcy	5	$\circ$	15.0	9.	+0.51
Villages				(	
Bounty	12.0	9	٠i	4.64	n/c
Hughton	13.0	2	~	6.57	n/c
Glidden	20.0	m.	0	7.63	-0.70
No+boxh:11	13.0	4	~	5.68	+0.24
Madicon	12.0	rc.	oi.	5.59	n/c
	17.0		7	6.29	+0.18
0 N	15.0	(2)	10	4.59	n/c
Dato Dato	17.0		31.0	14.21	+8.44
Laco Boara	18.0	7		ŝ	
Ctowart Nallov	16.0		34.0	16.04	+10.85
Jonaton a	0.91			1	•
Cacadena	0 0	4.85	$\sim$		+0.46
20 ver e gar	0.61		19.0	7.91	-0.03
N S S S S S S S S S S S S S S S S S S S	0.00	7	18.0		+0.15
2,000					
Towns		(	-	C	+
Milden Dinsmore	14.0 24.0	5.92 11.65	24.0	11.65	o/u
See footnotes at end of table					(continued)

See footnotes at end of table

FARM TO ELEVATOR HAULING DISTANCES BY DELIVERY POINT, BEFORE AND AFTER DIVERSION, BASIS 1969-70 (concluded) TABLE 42.

	Before 196	Before Diversion 1969-70	After D	After Diversion 1969-70	Difference in Average Before and After
Delivery Point	High	Average	High	High Average	Diversion
			- E -	- miles -	
Elrose Kyle <sup>a</sup>	17.0	6.51	32.0	14.89	+8,38
Greater Towns	C	7 20	0 8 5	30	+0.92
Eston	28.0	9.63	28.0	11.57	+1.94
Kindersley	24.0	8.91	24.0	9.02	+0.11
Total Study Area	28.0	6.53	34.0	9.39	+2.86

n/c - No change in hauling distances for delivery points open and unaffected by diversions.

\*Delivery points assumed closed after diversion.

## Through-Put Ratios

The through-put ratio (Table 43) is the total number of bushels received by a delivery point in one year divided by its total bushel storage capacity. This ratio represents one measure of efficiency of the grain elevator. The ten-year average is based on average annual receipts over the past ten years divided by the 1969-70 rated storage capacity. Based on ten-year average receipts, 42 delivery points had actual through-put ratios under 2.0 and only three had ratios of 3.0 or more. Excluding the seven points not operating in 1969-70, the lowest ten-year average ratio was 0.8 at Gunnworth and Forgan and the highest was 3.5 at Greenan. Through-put ratios in 1962-63 were, in general, slightly higher than in 1969-70, largely because of delivery fluctuations between the two years.

Contrary to what one might expect, through-put ratios at larger centers were not generally higher than at smaller centers. If anything, the reverse was true. Note that Rosetown had a through-put ratio of only 0.9, basis ten-year average receipts. Kindersley had a ratio of 1.1.

Upon rationalizing the grain delivery point system in the study area by assuming 23 points closed, total storage capacity was reduced by some 3.6 million bushels or about 25 per cent. Assuming further that no new storage space is constructed, through-put ratios after diversion were calculated and also presented in Table 43. On the average, the through-put ratio in the entire study area only increased from 1.4 to 1.9, which is not very significant. Of the 17 delivery points affected by additional grain receipts after diversion, 11 still showed through-put ratios less than 2.0. Three points experienced substantial increases, namely, Stewart Valley, Plato and Elrose. The ratios about tripled at each of these points on the basis of both 1969-70 and ten-year average.

It has been suggested that for an elevator to pay for itself, it must maintain a ratio of between 3.0 and  $4.0.^{1}$  One might speculate that an economically optimum through-put ratio is in the neighborhood of  $10.0.^{2}$  On that basis, given the present plant and labor resources, then even after diversion none of the country elevators in the study area would experience any difficulty in handling the additional through-put. No doubt total variable costs would increase; but total costs per bushel handled would decrease.

<sup>&</sup>lt;sup>1</sup>D. Zasada, "The Probable Effects of the Application for Railway Branch Line Abandonment on the Grain Elevator Industry", Canadian Farm Economics, April, 1968, page 21.

<sup>&</sup>lt;sup>2</sup>Speculative reasoning might suggest the following example. Suppose a one-elevator delivery point has a storage capacity of 25,000 bushels. A through-put ratio of 10.0 would require the handling of 250,000 bushels per year. At 2.000 bushels per boxcar the elevator agent would only have to load 125 cars per year or about 2.5 boxcars per week for 50 weeks.

All of the postdiversion ratios are less than 10.0 including the ratio at Stewart Valley. As already noted, before diversion there were only three delivery points that had a ten-year average through-put ratio of 3.0 or greater. After closing 23 of the 58 points the number of delivery points in this category only increased to four. If the optimum through-put ratio is, in fact, substantially higher than 3.0, say 10.0, then there is ample evidence that the country elevator system in the study region is overbuilt for the quantity of grain handled.

TABLE 43. THROUGH-PUT RATIOS BY DELIVERY POINT, 1962-63 AND BEFORE AND AFTER DIVERSION, BASIS 1969-70 AND PREVIOUS TEN-YEAR AVERAGE

		Before	Diversion	After	Diversion
			Ten-Year Average		Ten-Year Average
			1960-61 to	7000 70	1960-61 to
Delivery Point	1962-63	1969-70	1969-70	1969-70	1969-70
Too Small to Classi	fy				
Pym	-	-	0.4	-	-
Surbiton	1.9	-	0.8	_	_
Glen Payne Saltburn	0.3 2.5	-	-	_	_
Lille	1.1	_	0.8	_	_
Chipperfield <sup>a</sup>	1.6	-	1.2	-	-
Verendrye <sup>a</sup>	2.6	-	1.9	-	-
Gaines <sup>a</sup>	1.2	0.9	1.3	-	-
Mondou <sup>a</sup>	0.9	1.0 2.1	1.0 2.8	_	_
Inglenook <sup>a</sup> Penkill <sup>a</sup>	3.3 2.4	0.4	2.0	_	
Sandgren <sup>a</sup>	3.2	2.3	2.7	-	-
Witleya	1.3	0.6	1.0	-	-
Fortune	1.4	0.8	1.2	n/c	n/c
Juniper	3.2	2.3	2.9	n/c	n/c
Tichfield	1.9	1.6	2.0	n/c	n/c n/c
Anerley	2.8	3.0 2.1	3.0 2.2	n/c	-
Matador <sup>a</sup> Ridpath	1.5	0.6	1.3	n/c	n/c
Thrasher	1.2	1.1	1.4	-	-
Gunnwortha	0.7	0.7	0.8	-	-
Totnes <sup>a</sup>	1.2	1.1	1.2	_	-
Beadle	1.9	2.6	1.9	n/c	n/c
Hamlets					
Leach Siding	2.3	2.6	2.6	n/c	n/c
McMorran <sup>a</sup>	2.1 2.6	1.7 3.0	2.2	n/c	n/c
Bratton Glamis <sup>a</sup>	1.3	0.9	1.3	-	-
Tuberose <sup>a</sup>	1.0	1.0	1.1	-	-
Bickleigh <sup>a</sup>	2.0	1.3	2.1	-	_
Snipe Lake	1.7	1.7	1.6	n/c	n/c
Greenan	3.6	4.1	3.5 1.4	n/c	n/c
Isham <sup>a</sup>	1.4	1.5	1.6	n/c	n/c
McGee Sanctuary <sup>a</sup>	1.1	1.7	1.4	-	-
Tyner <sup>a</sup>	1.3	1.6	1.4	-	
Richlea	1.3	1.6	1.3	2.5	2.3

TABLE 43. THROUGH-PUT RATIOS BY DELIVERY POINT, 1962-63 AND BEFORE AND AFTER DIVERSION, BASIS 1969-70 AND PREVIOUS TEN-YEAR AVERAGE (concluded)

		Before	Diversion	After	Diversion
Delivery Point	1962-63	1969-70	Ten-Year Average 1960-61 to 1969-70	1969-70	Ten-Year Average 1960-61 to 1969-70
berivery rome	1302 00	1303 70			
Wartime Forgan D'Arcy	1.3 0.8 2.0	1.9 0.8 2.4	1.4 0.8 2.2	2.3 1.1 3.1	1.8 1.3 3.0
Villages					
Bounty Hughton Glidden Netherhill Madison Fiske Macrorie Plato White Beara Stewart Valley Lacadenaa Sovereign Wiseton Brock	1.4 0.8 1.5 1.6 1.4 1.5 2.6 2.4 1.9 2.2 1.3 1.4	1.2 1.4 1.1 1.7 1.0 1.9 2.4 1.8 2.0 2.2 1.7 1.3 1.6	1.4 1.0 1.1 1.6 1.1 1.7 3.1 1.7 2.0 2.5 1.8 1.3 1.5	n/c n/c 1.4 1.8 n/c 2.0 n/c 6.6 - 1.5 1.8 2.2	n/c n/c 1.4 1.7 n/c 1.8 n/c 6.6 - 7.4 - 1.6 1.7 2.0
Towns Milden Dinsmore Elrose Kyle <sup>a</sup>	1.4 1.7 1.1 1.6	1.4 1.4 1.5	1.3 1.4 1.3 1.8	1.5 n/c 4.4	1.3 n/c 4.1
Greater Towns Eston Rosetown Kindersley	1.4 1.8 1.6	1.5 1.2 1.2	1.3 0.9 1.1	2.0 1.3 1.3	1.8 1.1 1.2
Total Study Area	1.5	1.4	1.4	1.9	1.9

n/c - No change in ratios for delivery points remaining open and unaffected by diversions.

<sup>&</sup>lt;sup>a</sup>Delivery points assumed closed after diversion.

## Number of Permit Holders Before and After Diversion

If the kind of rationalization postulated in this report were to take place there would also be adjustments in the number of permit holders associated with each delivery point affected. Based on the actual number of permits issued by delivery point 1969-70, estimates were made of the probable number of permits at each delivery point after diversion (Table 44). These estimates were derived using the percentage distribution values in Table 40 in the same manner that acreage and bushel diversions were made. It was also assumed that there would be no attrition of producers as a result of rationalization. In total 732 permit holders would find it necessary to alter their delivery point, which represents 25.3 per cent of the total 2,895 permit holders in the study area.

Plato gained the largest number of permit holders with an increase of 180 added onto an original 58. Other delivery points which more than doubled their numbers of permits were (increases shown in parentheses): Elrose (150), Stewart Valley (140) and Richlea (70). Comparison with previous tables in Part IV reveals that the above four delivery points were also affected most by diversion in terms of acreage and bushel diversions, farm to elevator hauling distances and through-put ratios.

TABLE 44. NUMBER OF PERMIT HOLDERS BY DELIVERY POINT BEFORE AND AFTER DIVERSION, BASIS 1969-70

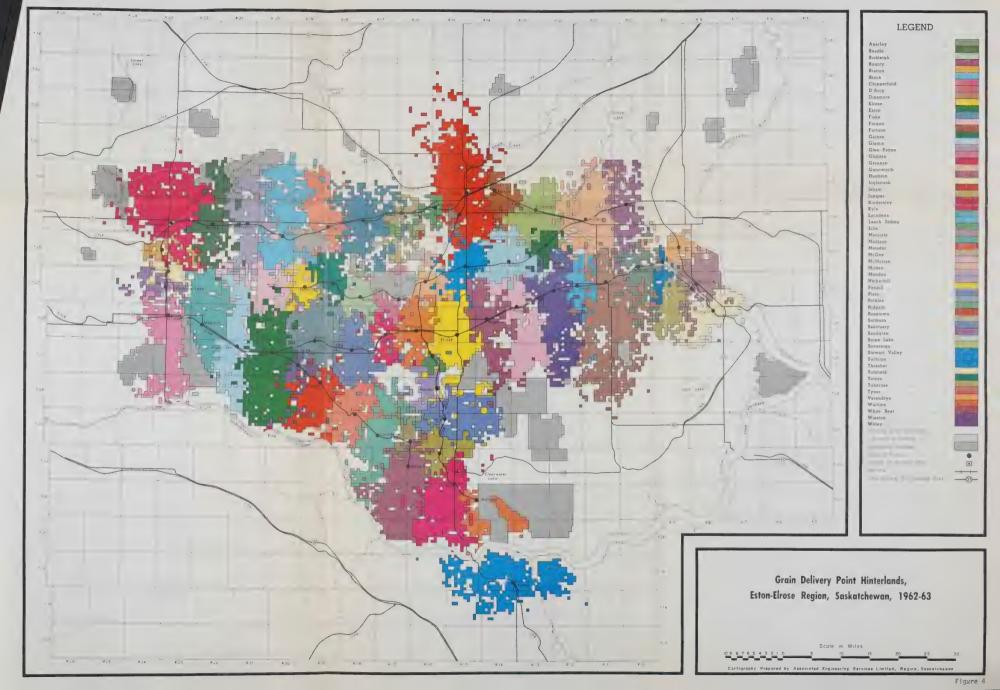
Delivery Point	Number of Permit Holders Before Diversion	Estimated Number of Permit Holders After Diversion
Too Small to Classify		
Gaines <sup>a</sup>	12	_
Mondou <sup>a</sup>	11	-
Inglenook <sup>a</sup>	16	-
Penkill <sup>a</sup>	13	
Sandgren <sup>a</sup>	18	-
Witley <sup>a</sup> Fortune <sup>b</sup>	13	-
Fortune	22	22
Juniper <sup>b</sup>	31	31
Tichfield <sup>b</sup>	30	30
Anerley	46	46
Anerley <sup>b</sup> Matador <sup>a</sup> Ridpath <sup>b</sup>	23	6
Kidpath	6 25	Ö
Thrasher <sup>a</sup>	20	-
Gunnworth <sup>a</sup> Totnes <sup>a</sup>	31	_
Beadle	65	65
Hamlets Leach Siding <sup>b</sup> McMorran <sup>a</sup> Bratton <sup>b</sup> Glamis <sup>a</sup> Tuberose <sup>a</sup> Bickleigh <sup>a</sup> Snipe Lake <sup>b</sup> Greenan <sup>b</sup> Isham <sup>a</sup> McGee <sup>b</sup> Sanctuary <sup>a</sup> Tyner <sup>a</sup> Richlea Wartime Forgan D'Arcy	32 33 30 34 30 22 81 18 63 15 45 59 59 43 61 52	32 - 30 - - - 81 18 - 15 - 129 57 84 68
Villages Bounty <sup>b</sup> Hughton <sup>b</sup> Glidden Netherhill Madison <sup>b</sup>	48 63 61 55 68	48 63 76 59 68

TABLE 44. NUMBER OF PERMIT HOLDERS BY DELIVERY POINT BEFORE AND AFTER DIVERSION, BASIS 1969-70 (concluded)

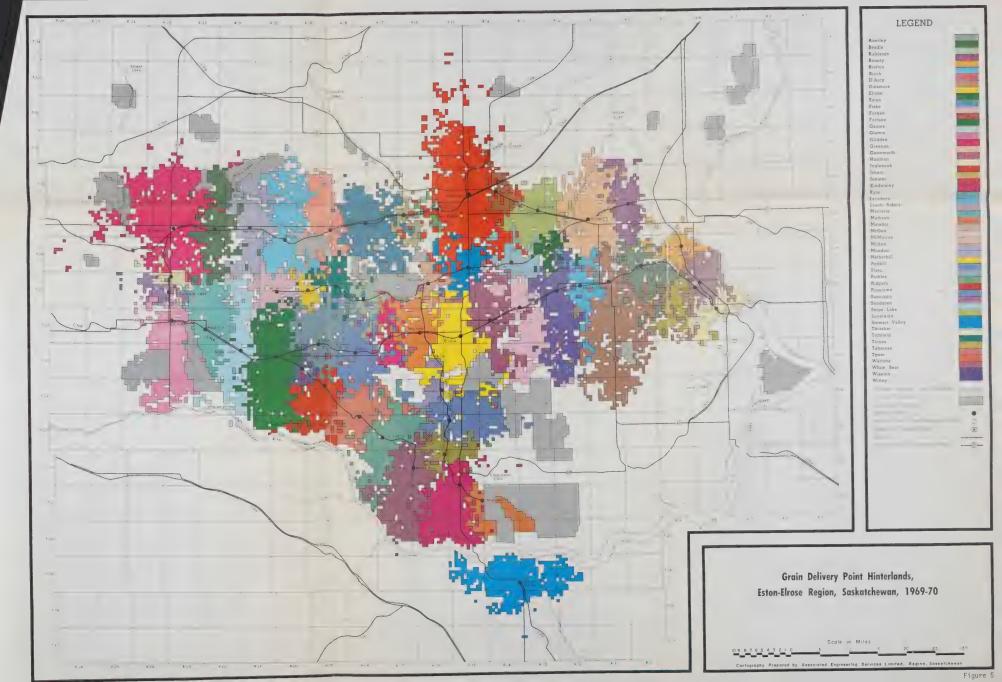
	Number of Permit Holders	Estimated Number of Permit Holders
Delivery Point	Before Diversion	After Diversion
Fiske Macrorie <sup>b</sup> Plato White Bear <sup>a</sup> Stewart Valley Lacadena <sup>a</sup> Sovereign Wiseton Brock	79 44 58 105 95 66 57 73	82 44 238 - 235 - 67 82 101
Towns Milden Dinsmore <sup>b</sup> Elrose Kyle <sup>a</sup>	82 158 73 93	84 158 223
Greater Towns Eston Rosetown Kindersley	125 196 150	167 217 169
Study Area Total	2,895	2,895

<sup>&</sup>lt;sup>a</sup>Delivery points assumed closed after diversion.

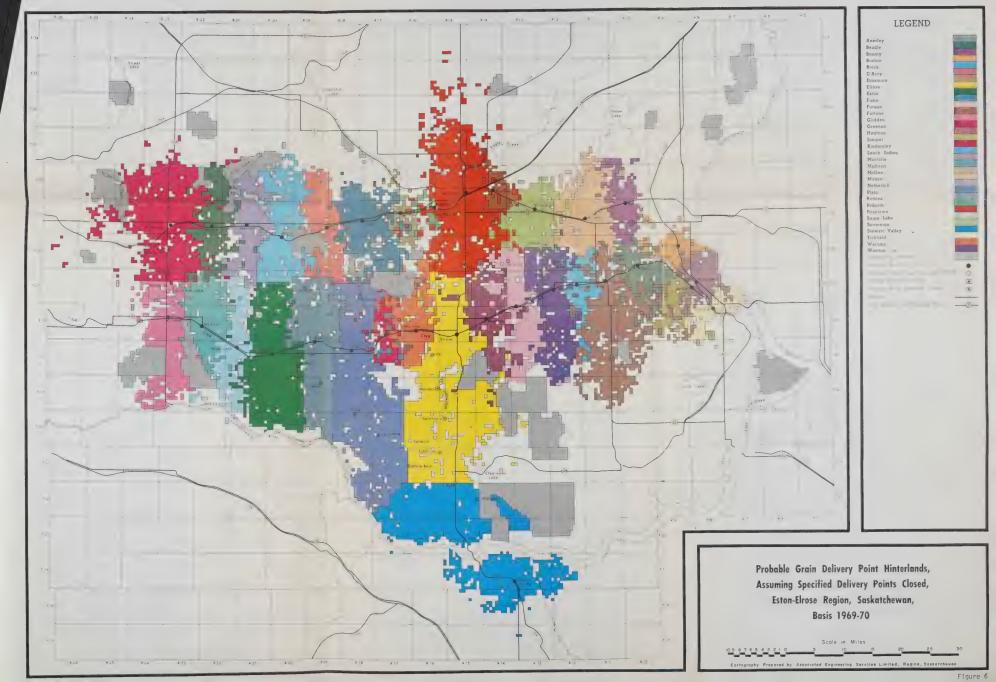
 $<sup>^</sup>b\mathrm{Delivery}$  points open and unaffected by diversion.













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ROSETOWN 72 0

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WEST OF THIRD MERIDIAN OUEST DU TROISIÈME MÉRIDIEN

### GENERAL DESCRIPTION OF THE ROSETOWN MAP SHEET AREA, 72 O

## DESCRIPTION DU TERRITOIRE DE LA CARTE 72 O - ROSETOWN

# KINDERSLEY

### SASKATCHEWAN WEST OF THIRD MERIDIAN \_OUEST DU TROISIÈME MÉRIDIEN



### DESCRIPTIVE LEGEND





KINDERSLEY 72 N

GENERAL DESCRIPTION OF THE KINDERSLEY MAP SHEET AREA, 72N

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